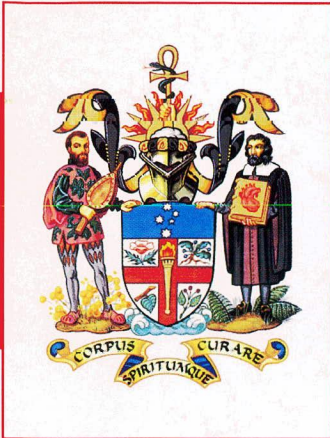


Australian and New Zealand College of Anaesthetists

ABN 82 055 042 852

Joint Faculty of Intensive Care Medicine
Faculty of Pain Medicine



Bulletin

*'To serve the community by fostering safety and quality patient care
in anaesthesia, intensive care and pain medicine'*

Inside

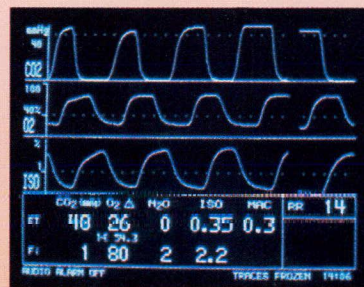
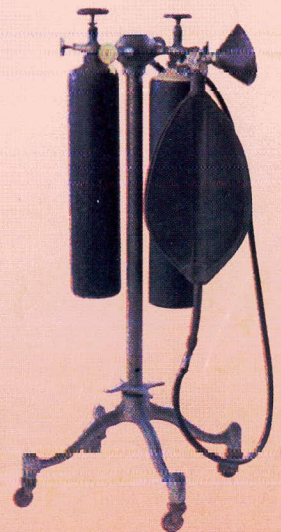
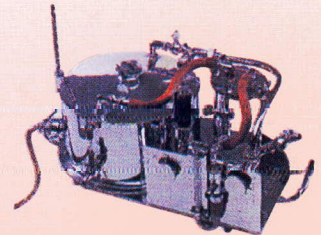
- President's Message
- Law Reports
- ANZCA Foundation
- Multicentre Clinical Trials
- Fires in the Operating Theatre
- Highlights of Council

Faculty of Pain Medicine

- Dean's Message
- Alternate Pathway to Fellowship
- MOPS
- Case Study

Joint Faculty of Intensive Care Medicine

- Dean's Message
- Finance Update
- Annual Report
- Intensive Care Training Update



Contents

Page	
1	President's Message
2	HELP Module 40
3	Rural Specialist and Trainee Pilot Educational Support Programs
3	Deaths
5	Simulation/Education Grant
5	Undergraduate Prize – Catherine Francis
5	Fires in the Operating Theatre
6	OTS Performance Assessment May 2003
7	Law Reports
	– Are Hospitals Liable for Criminal Acts of Doctors?
	– Refusing to Treat Patients for Non Emergency Procedures
10	2005 Research Grants Advertisement
11	ANZCA Foundation
13	Highlights from Council
15	Honours and Appointments
15	Foundation Donations
16	Victorian Registrars' Meeting
16	Combined ANZCA/ASA CME Meeting
17	Education Report
18	ANZCA International Scholarship for 2004
18	2004 Academic Anaesthesia Enhancement Grant
19	Multicentre Clinical Trials Secretariat
20	College Library

Faculty of Pain Medicine

29	Dean's Message
30	Alternate Pathway to Fellowship
30	Admission to Fellowship
31	MOPS; Examination Dates
32	Committees
33	Case Report – Acute Pain Management and Postoperative Outcome
41	OTS Performance Assessment Dates
42	FANZCA Examination Dates
43	Final Examination May 2003
44	Cecil Gray Prize; Merit List; Admission to Fellowship
53	Obituaries – Kevin Byers
	– Robert Coulter
	– Trevor (Peter) Currie

Joint Faculty of Intensive Care Medicine

57	Dean's Message
58	Finance Update; Email Distribution List
59	Lifetime Achievement – Geoff Barker
59	Senior Registrar Training
60	Items of Interest from Board Meeting
62	New Fellows' Conference Report – J Hunt-Smith
63	Intensive Care Training Update
64	Annual Report
68	Admission to Fellowship
69	Policy Document – ICI 'Minimum Standards for Intensive Care Units'
78	Examination Dates
79	Future Meetings
85	Professional Documents
	– PS31 'Recommendations on Checking Anaesthesia Delivery Systems'
	– PS49 'Guidelines on the Health of Specialists and Trainees'

Editorial

Mrs Joan Sheales, Editor
Dr M. Martyn
Dr R.S. Henderson
Dr R.N. Westhorpe
Mr E. Dean

The Australian and New Zealand College of Anaesthetists' *Bulletin* is published four times per year by the Australian and New Zealand College of Anaesthetists, ABN 82 055 042 852, 630 St Kilda Road, Melbourne, 3004, Victoria.

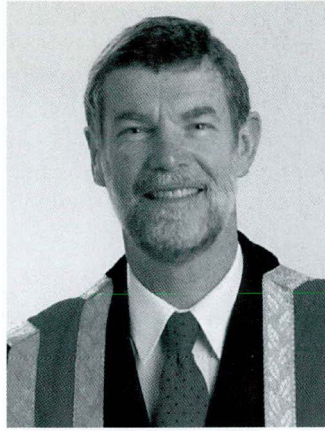
Telephone: + 61-3 9510 6299
Facsimile: + 61-3 9510 6786
E-mail: ceoanzca@anzca.edu.au
Internet: <http://www.anzca.edu.au>

Regional and New Zealand Committee offices can be contacted via email as follows:

ACT: act@anzca.edu.au
NSW: nsw@anzca.edu.au
NZ: nz@anzca.edu.au
QLD: qld@anzca.edu.au
SA: sa@anzca.edu.au
TAS: tas@anzca.edu.au
VIC: vic@anzca.edu.au
WA: wa@anzca.edu.au

Copyright 2003 by the Australian and New Zealand College of Anaesthetists, all rights reserved. None of the contents of this publication may be reproduced, stored in a retrieval system or transmitted in any form, by any means without the prior written permission of the publisher.
ISSN 1038 0981

Unless specifically stated otherwise, the opinions expressed and statements made in this publication reflect the author's personal observations and do not imply endorsement by, nor official policy of, the Australian and New Zealand College of Anaesthetists.



President's Message

Richard J Willis, ANZCA

Shortages across the whole health workforce are now being acknowledged as the most serious issues that are confronting healthcare in both Australia and New Zealand. The shortage of nurses in our two countries is well accepted. That there is also a serious shortage in the medical workforce will come as no great surprise to anaesthetists who have been aware of the problem developing since the release of the last AMWAC Report on the Anaesthesia Workforce in 2001.

Over and above the countrywide shortage of doctors, there is a major maldistribution of our anaesthesia workforce with critical shortages in rural areas. These seem to be getting worse rather than better, with some relatively large rural hospitals having to move patients to cities, not because of the serious nature of their illness but simply because there are no doctors to do the work. The reasons of course are complex. Family issues, working partners, poor access to professional development and education, onerous on-call duties, unavailability of locums, unsupportive or hostile administrations both at hospital and government level are all part of the mix that can lead to disillusionment. In Australia, the Prime Minister has at least acknowledged the problem and has announced that 234 new medical student places will be made available to students who agree to be bonded to work in areas of 'workforce shortage'. It is the intention that 20% of students at each medical school will eventually be bonded. As would be expected with further details not yet forthcoming, this plan has not been received with much enthusiasm from either the students or the profession.

But rural practice has many appealing features, as many of our rural anaesthetists will explain. ANZCA is trying to help address some of the difficulties where it can, and has been assisted by Government acknowledgement of the endemic problems and by the provision of needed funds for a number of projects. All of our Rotational Training

Programs now include at least one rural hospital to provide the availability for rural training experience. While some may wish otherwise, there are currently insufficient rural rotations to make them compulsory for all trainees and in any case, for a minority of trainees, such a decision would impose unacceptable hardships. Many Fellows and trainees have been somewhat sceptical about the value of these rural rotations. Obviously the benefits will vary widely depending on the particular area and the people involved, but a critical question is 'Do rural placements of trainees improve the retention rate of these trainees in rural areas?' Evidence is now becoming available that suggests that 'rurality' actually works. Such evidence was obtained from an AMWAC questionnaire on Career Decision Making sent to all recent trainees and also from a review of allied health practitioners comparing long-term rural practice of those who trained in the city with those that trained in the country. This yielded a surprisingly large difference of 20% v 75% respectively.

ANZCA has recently received special Commonwealth funding to establish programs that will help to support CPD for rural anaesthesia practitioners. The Support Scheme for Rural Specialists (SSRS) has provided funding for two separate projects. A scheme is underway using a sophisticated, portable patient simulator to teach and refresh resuscitation skills and crisis management with scenarios tailored for the particular practitioners, not just anaesthetists. It will be piloted in two rural areas. This venture will be assessed and if successful extended to other areas. This use of mobile simulation has already proven popular for other CPD. Another pilot scheme, to be shared with the College of Obstetrics and Gynaecology, will assist rural specialists from both Colleges with audit and risk management procedures. There is the potential for more funded programs of a similar nature to be developed.

A separately funded project for rural trainees (RASTS) will commence in August with a series of lectures on chosen topics presented by key experts via video-conferencing, thus enabling rural trainees to participate in active discussion between themselves and acknowledged local experts. More information about these three new programs is available elsewhere in this Bulletin in an article written by Professor Garry Phillips.

The Rural Anaesthesia Recruitment Service (RARS), based at the College, has been in operation since July 1999, providing both a locum service for rural anaesthetists and some permanent rural specialist placements. The number of anaesthetists requesting help currently exceeds the number of those willing to provide it, and so RARS would be grateful for some new volunteer locum recruits. Concerns regarding indemnity issues seem to be discouraging those Fellows approaching retirement, who have in the past been strong supporters of the scheme,

from making themselves available for locum service. Any Fellows interested in rural locum work are encouraged to contact the RARS Secretariat at the College.

Directors and Supervisors of Training in our training hospitals are now in the process of selecting trainees and modifying their programs for 2004 in accordance with the changes necessitated by the revised FANZCA Training Program. The College Council is well aware of the extra work that has been done by many people to establish the revised program and is very grateful to all those who have assisted. There is no doubt that our trainees will receive better training despite us having to negotiate the immediate hurdles of the implementation process.



Richard Willis
President



Professor Garry Phillips

Rural Specialist and Trainee Pilot Educational Support Programs

The Commonwealth Department of Health and Ageing is currently funding a number of projects of an educational nature for rural specialists and trainees in the various disciplines. The Support Scheme for Rural Specialists (SSRS) is funded via the Committee of Presidents of Medical Colleges (CPMC), while the Rural Advanced Specialist Training Scheme (RASTS) is funded directly by the Commonwealth.

Specialists

ANZCA has received funding for a pilot project originally proposed during a teleconference held in January to discuss the responses of rural specialists to a survey carried out in November 2002.

This pilot, "Training of Rural Anaesthetists in Clinical Crisis Management using a Simulator based approach", will involve two, two-day workshops in each of Orange, NSW (12-13 and 14-15 September) and Cairns, Qld (24-25 and 26-27 October).

The simulator team will be led by Dr Brendan Flanagan and Dr Michele Joseph from the Simulator Centre, Southern Health, Monash Medical Centre. The courses will be evaluated by both ANZCA and CPMC, and it is anticipated that a successful pilot will result in funding for additional courses in 2004. The CPMC requires the courses to be open to anaesthetists, and to other specialists who are resident, and work in rural areas, concentrating on the teamwork approach to crisis management.

Further information is available from Helen Morris at ANZCA (hmorris@anzca.edu.au)

A second pilot project, joint RANZCOG/ANZCA, and managed by RANZCOG, is "Practice Review and Clinical Risk Management."

This project is designed to provide rural specialists with an opportunity to gain skills in risk management, develop and implement clinical audits, evaluate objectively adverse outcomes within a safety and quality framework, and provide them with support when managing these difficult events.

The pilot is open to rural anaesthetists in Victoria, and it is hoped to extend it to rural anaesthetists throughout Australia in 2004. Further information is available from Gabby Fennessy at RANZCOG (gfennessy@ranzcof.edu.au)

Trainees

A pilot series of videoconferences for rural trainees has been set up to run weekly from 7 August until 2 October. Each videoconference will be led by an expert in a particular area, who will provide an interactive session targeting specifically rural trainees in ANZCA accredited posts across Australia.

At a follow up session, the same speaker will run a second interactive session aimed at discussing learning issues identified by the trainees in the first session. Speakers for this series are Professor Michael Cousins, Professor Guy Ludbrook, A/Professor Michael Paech, A/Professor Kate Leslie, Mr. Michael Gorton, Dr. Philip Ragg and Dr. Leonie Watterson. Further information is available from Helen Morris at ANZCA (hmorris@anzca.edu.au).

The Future

Following the completion of both Specialist and Trainee projects by the end of this year, and their evaluation, the College will look at the future of these types of activities in both Australia and New Zealand. Funding specifications have at present limited the pilots as described above.

Garry D. Phillips
Director of Professional Affairs

Death

The death of Dr David Colin Begg (NSW) – FFARACS 1981, FANZCA 1992 is noted with regret.



Catherine Francis

Undergraduate Prize in Anaesthesia

The recipient of the 2002 ANZCA Prize for the University of Auckland was Ms Catherine Francis. The New Zealand National Committee organised the presentation of Catherine's Prize in April this year.

Overseas Trained Specialists Performance Assessment

May 2003

The following candidates were successful at the recent Overseas Trained Specialists Performance Assessment and have completed the requirements of the OTS Assessment process.

Richard John Geytenbeek	QLD
Christopher Martin Jelliffe	QLD
Iain George Johnston	QLD
Guoming Liu	TAS
James Michael Simmons MacDonald	NSW
Monzer Hassan Sadek	WA
Beate Schroeter	NZ

The following candidates were successful at the recent Overseas Trained Specialists Performance Assessment and are yet to complete the requirements of the OTS Assessment process.

Keith Russell Brown	QLD
Aileen Dorothy Craig	SA
Michaela Maria Hamschmidt	NZ
Dilip Kapur	SA
Ralph Kenrick Longhorn	WA
Gerhard Friedhelm Neumeister	QLD
Lionel Douglas Paxton	VIC
De Wet Potgieter	QLD
Mark Andrew Williams	WA
Clive Bernard Jonathon Woolfe	NSW



Law Reports

Michael Gorton LLB., B.Comm., FRACS (Hon), FANZCA (Hon)
College Honorary Solicitor
Partner – Russell Kennedy, Solicitors

‘Are hospitals liable for the criminal acts of doctors?’

It is well established that an employer can be liable for the negligent actions of its employees.

A recent decision in the High Court has posed the question whether an employer is also liable where an employee commits a criminal or wrongful act intentionally. In other words, if an employee commits fraud or, worse, manslaughter – will the Hospital be liable?

The decision of the High Court in *NSW v Lepore, Rich v Queensland* and *Samin v Queensland* considered this question.

These cases relate to the liability of a school for the sexual abuse perpetrated by its teachers. They occurred in circumstances where it was not alleged that the schools could be liable by reason of any act or omission on their own part. The question asked is why the school should be liable when the acts of the teachers are clearly beyond the scope of their duties and clearly contravene the school’s policies and directions.

Similar considerations are likely to apply in the case of Hospitals in relation to any **criminal** actions by doctors, nurses or other employees of the Hospital.

Non-Delegable Duty of Care

Hospitals are subject to what is called the ‘non-delegable duty of care’ to patients. It exists and extends beyond the simple duty to ‘take care’. For example, a school has such a duty towards its students, because it assumes a special responsibility for the students in its care.

In undertaking the care, supervision and control of patients in special need, the Hospital similarly has a non-delegable duty of care to its patients.

The High Court recognises that this duty amounts to an absolute duty to prevent injury or damage, in the case of schools, to students and in the case of Hospitals, to patients.

The duty cannot be delegated to others (in the case of schools, to teachers or in the case of Hospitals, to doctors). The Hospital has a duty to act with reasonable care to prevent harm coming to those within its care.

In this case, the High Court found that an intentional wrongful or criminal act is more than a failure to take reasonable care on part of the delegate (the teacher) and is thus outside the employers non-delegable duty of care. Accordingly, the Court confirmed that the non-delegable duty of care remains confined only to negligence, and not to intentional criminal acts.

Vicarious Liability

An employer is vicariously liable for the actions of an employee – where the actions are connected with the employee’s responsibilities, and to the extent that they are within the scope of the employment.

The question raised by the High Court was how to determine whether an intentional criminal act could constitute part of the employee’s employment.

The High Court had to consider whether intentional criminal acts were outside the employee’s employment to such an extent that the employer should not be liable.

The majority of the High Court determined that intentional criminal acts can be within the scope of employment if there is sufficiently close connection between the criminal act and the employee’s authorised conduct. Thus the employer will still be liable if a criminal act has taken place in relation to powers, duty or responsibility which has a sufficiently close connection with the tasks of the employee.

The Court held that such a close connection would exist where the nature of the employer's business, and the powers and duties granted to the employee, created or materially increased the risk of the criminal conduct occurring. Factors to be taken into consideration would include the precise role of the employee, the age and vulnerability of the victim, and the circumstances and nature of the wrongful act.

Clearly the issue of sexual abuse in relation to students at a school, is of such close proximity to the work carried out by the teacher.

Similarly, criminally negligent care (amounting to manslaughter) would have a similar connection to the work of a doctor or nurse – for which the Hospital is likely to be liable.

Implications for Hospitals

Whilst the bounds of the non-delegable duty of care have not been extended in this case, the High Court's test for vicarious liability has ramifications for Hospitals and health institutions.

In a Hospital, doctors and nurses are granted significant control over patients, most of whom are in a particularly vulnerable state. Due to the nature of care or treatment the patients may require it is both probable and desirable that they form close and trusting relationships with the doctors and nurses.

A wrongful or criminal act by a doctor or nurse in this context would almost certainly satisfy the test proposed by the High Court for vicarious liability.

Indeed, even where the doctors and nurses are not strictly employees of the Hospital (but may be independent contractors) there is a strong possibility that the High Court would consider that liability should still be attached to the Hospital.

The visible degree of responsibility held by staff of the Hospital or health institution gives patients the impression that they are empowered to do things which they may not in fact be authorised to do. Where a Hospital creates this apparent or ostensible authority, it is likely to be liable if that authority is abused by its employees or agents.

Given that the liability of Hospitals and health institutions has been extended to cover criminal or unlawful acts, it is advisable that they include these risks in any review of risk management policies and in the guidelines and directives it issues to its medical and other staff.

Additionally, Hospitals should review insurance arrangements to ensure that criminal acts of employees and agents are covered. Some policies may exclude intentional criminal acts.

Refusing to treat patients for non emergency procedures

M Gorton and S Milicevic

This article examines the legal duty of doctors refusing to treat patients for non emergency procedures.

For example, is it possible to refuse to anaesthetise a Jehovah's witness where there is a significant risk of blood loss? Is it possible for a Roman Catholic Specialist to refuse to terminate a pregnancy?

Do patients have any 'legal rights' or legal recourse to be treated for non emergency procedures?

A legal right is one that can be enforced at law.

The law confers rights in contract, tort (negligence) and statute on a person once they have been accepted for medical treatment¹. That is, once a patient-doctor relationship has been established.

If no relationship has been established (i.e. the doctor has not accepted the patient as a patient) the potential patient has little scope for claiming a legal right to treatment.

A doctor was found to have a duty to provide medical care in an emergency situation, when reasonably able to do so according to s.36(l) of the *Medical Practice Act 1992* (NSW)². This is the only Australian authority to impose such a 'duty to treat' where there is no pre-existing doctor patient relationship. This statutory duty is only

enforceable in NSW as there is no similar statutory duty

in the other states of Australia.

The Courts are reluctant to impose a common law duty to treat in emergency situations³ but the position is not entirely clear. (See previous article on doctors duties in emergency situations titled 'Doctors to the Rescue'; *Bulletin November 1998* pgs 8-10). Of course, if the refusal to treat is based on discriminatory reasons, there may be a claim under equal opportunity and anti-discrimination law.

Publicly Funded Institutions – Is there a duty to treat all patients?

There is a speculative argument as to the existence of some sort of duty or legal entitlement of the patient to be treated in publicly funded institutions⁴. This is based on the public's expectation to receive medical treatment due to the agreements made between State and Federal governments to fund certain health service providers. The

strength of this argument lies in the provision of treatment in urgent or emergency situations and is obviously weaker if applied to non emergency procedures.

In any case, should this duty (if any) be found, the main avenue for a patient to seek recourse is against the publicly funded institution. This may impact on the doctor in an indirect manner.

The failure of a publicly funded institution to provide services for which it was created, may result in the service provider being criticised by government. In extreme cases, this may lead to a reduction in funding. Some disciplinary action might be taken against the doctor if they were acting contrary to the institution's policies.

Employment contract

A doctor's employment contract may specify an obligation to treat all patients admitted. Breach of this contractual obligation could subject the doctor to disciplinary action from their employer.

Scope of Refusal – The 'right' of doctors to refuse to treat patients

Refusal to treat any patient should only be decided on the basis of reasonable medical grounds. A doctor, in your position and with the same information available, should be able to come to the same decision to refuse. Additionally, reasonable steps should be taken to inform the person of the reasons and also ensure continued care with another appropriate health care provider. This would fulfil the legal and ethical duties and minimise grounds available for complaint to those dissatisfied with the refusal.

Health care professionals are generally prohibited from discriminating against individuals based on their age, sex, race, skin colour, national origin, religion, political belief, sexual orientation, physical or intellectual disability or marital status, etc.

The above types of discrimination are prohibited by various statutes and codes throughout Australia. The majority of complaints based on discrimination are often directed to various boards, commissions, and tribunals especially created for that purpose. Additionally, complaints can be made to the Health Services Commissioners.

Again, any such complaints should be avoided by refusing to treat based on medical grounds and providing reasonable and informed alternatives for continued care.

Ethics

Ethical issues may influence a doctor's decision not to treat, but cannot override legal obligations.

Codes of Ethics and the like do not provide potential patients with legally enforceable rights. For example the AMA Code of Ethics 2003⁵ would not be enforced by a court of law as such codes are viewed as normative guides and aspirational in nature⁶.

The AMA Code of Ethics 2003 reflects legal requirements. In particular the section titled 'Patient Care' paragraph 1.1 (j) guides doctor's to refrain from denying treatment to patients

based on discrimination. Later on, paragraph 1.1 (q) recognises that doctor's may decline to enter into a therapeutic relationship where an alternative health care provider is available, and the situation is not an emergency.

Conclusion

There is only one directly applicable Australian case where the courts have imposed a duty to treat in an emergency and only applies to doctors in NSW. Although the position is still unclear and not formally tested, it is unlikely that a court would acknowledge an enforceable right to health services for a person who has not previously been accepted for treatment⁷.

Publicly funded institutions may be required by statute and funding requirements to provide urgent or emergency treatment. It is unlikely that such a duty would be extended to non emergency procedures.

A doctor's decision to refuse treatment should not be based on discrimination.

There may be some scope for an employer to take action against the doctor for breach of obligations under the employment contract. In order for doctors to protect themselves from being personally liable they should follow the policy of their employer in refusing to treat patients.

So, for the doctor refusing to anaesthetise a Jehovah's witness where there is a significant risk of blood loss, or the doctor refusing to terminate a pregnancy, it is advisable that the following process be followed:

- 1) if applicable, check and comply with the employer's policy, procedure or protocol for refusing to treat;
- 2) fully inform the potential patient of the reason/s for refusing treatment; and
- 3) ensure the potential patient has continued care with another appropriate health care provider.

Remember, a doctor can refuse to treat a potential patient for non emergency procedures as long as the refusal is based on reasonable medical grounds.

(I am grateful to **Stephen Milicevic** for assistance in the preparation of this article).

¹ Skene, L., 1998 *Law and Medical Practice: Rights, Duties, Claims and Defences*, p 61.

² *Lowns v Woods* (1996) Aust Tort Reports 81-376 ; [1996] ACL Rep 280 NSW 2 at 1452.

³ *Lowns v Woods* (1996) Aust Tort Reports 81-376 ; [1996] ACL Rep 280 NSW 2.

⁴ Skene, L., 1998 *Law and Medical Practice: Rights, Duties, Claims and Defences*, p 64-67.

⁵ Available at <http://www.ama.com.au>

⁶ Skene, L., 1998 *Law and Medical Practice: Rights, Duties, Claims and Defences*, p 63-64.

⁷ Skene, L., 1998 *Law and Medical Practice: Rights, Duties, Claims and Defences*, p 70-1.



Professor Michael Cousins

ANZCA Foundation

The ANZCA Foundation currently channels funds allocated by ANZCA to the Research Committee for allocation to research projects, research fellowships and other research applications such as Simulation Grants and other areas recommended by the Research Committee. ANZCA currently allocates a modest amount of approximately \$400,000 per annum to support research. This is equivalent to approximately one modest sized NHMRC grant and is clearly not capable of providing a major stimulus to research and development within Anaesthesia, Intensive Care Medicine and Pain Medicine. It is becoming increasingly important for medical specialties to demonstrate a strong performance in research as a mark of the scientific basis of clinical practice, and indirectly as an indication of a specialty status within the medical fraternity. Thus, high achievement in research raises the profile of a specialty and inevitably increases the status of each and every one of its Fellows

One only has to contemplate for a moment the difficult times currently being experienced by the RACS, and other factors closer to home, to recognise the importance of a strong profile for any specialty. Thus I encourage all Fellows to take an interest in the research standing of ANZCA, if only for reasons of self interest.

I have reproduced below highlights of the proposed brochure which has been prepared as part of a strategy to develop the ANZCA Foundation into a strong body that will seek funds from a wide range of external sources, in order to build up the funding of the ANZCA Foundation for research. This is a strategy that has been followed by the RACS and RACP with substantial success and I seek input

or suggestions from Fellows for inclusion in the brochure. I am currently assembling a Board of community leaders and will be most grateful to hear from any ANZCA Fellow with suggestions for the Foundation Board, particularly of individuals who may feel indebted to ANZCA for treatment in the fields of anaesthesia, intensive care or pain medicine. ANZCA previously had agreement from the former Governor General to provide patronage for the Foundation and we have written to the new Governor General requesting that he continue this patronage.

It has been necessary to wait for the full evolution of the Joint Faculty of Intensive Care Medicine to determine whether the Joint Faculty would wish to participate in the ANZCA Foundation. I am delighted that the Board of the Joint Faculty has recently decided in the affirmative. Sensible arrangements will be set in place to make sure that there is a co-operative and productive relationship with the ANZICS Foundation.

It is always difficult to launch a new Foundation and to attract funding, however there is no other body in Australia which represents Anaesthesia, Intensive Care Medicine and Pain Medicine. I believe the message contained in the brochure below is a strong one and that ANZCA really is an "unsung hero". Thus I would encourage all Fellows to get behind the ANZCA Foundation very strongly and I will be writing more about this in a future Bulletin. I would be happy to hear from any Fellow who has suggestions or who can offer assistance in the development of the ANZCA Foundation. After all it is our Foundation.

Michael J Cousins
Vice President ANZCA

ANZCA – An unsung Hero in Advances in Health Care

The Australian and New Zealand College of Anaesthetists (ANZCA) is one of the largest and most respected specialist Medical Colleges. ANZCA is responsible for training programs, examinations, continuing education and professional standards in:

- Anaesthesia (specialist qualification FANZCA)
- Intensive Care (specialist qualification FJFICM)
- Pain Medicine (specialist qualification FFPANZCA)

Many of the advances in health care that are crucial to the safety and well being of patients in life-threatening situations owe their origins to pioneering work by ANZCA Fellows. Some examples of such advances are:

- *The safest anaesthesia worldwide, even for very major surgery from the newborn to the elderly. All Australians will be cared for by an anaesthetist, intensivist or pain medicine specialist at some time in their life.*
- *Anaesthesia has allowed the development of all types of surgery, including cataract, plastic, orthopaedic and cardiac surgery. It has also allowed pain free labour and delivery.*

- World leadership in developing **Medical Simulation Centres (MSCs)** similar to the Aircraft Flight Simulators. These MSCs are playing a leading role in attacking the disturbingly high incidence of adverse events in health care.
- For **critically ill patients** (eg. after trauma, surgery or 'medical' problems), the best outcome record for survival worldwide. ANZCA Fellows **developed** Intensive Care Units in Australia/New Zealand and their research has dramatically reduced mortality for many life-threatening conditions. The **Joint Faculty of Intensive Care Medicine** is by far the world leader in professional standards of critical care, with a single training program and examination developed jointly by ANZCA and the Royal Australasian College of Physicians; this has not been achieved elsewhere in the world.
- For patients with **severe pain**, revolutionary new methods of treatment have greatly reduced human suffering and provided large financial savings for the community. **The Faculty of Pain Medicine** represents a unique event in medicine worldwide bringing together the five specialty bodies of Anaesthesia, Surgery, Medicine, Psychiatry and Rehabilitation Medicine. Pain relief after surgery and due to cancer has advanced from less than 50% success 10 years ago to now more than 95% success; for persistent non-cancer pain (eg. phantom limb pain, severe shingles, back pain etc) whereas previously less than 10% of patients could obtain relief, now more than 75% can be relieved of their pain.

The ANZCA Foundation. Why is it needed?

Despite the contributions of ANZCA described above, a recent report of NHMRC funding in Australia found that anaesthesia and intensive care received the least funding of all specialties and pain medicine was not even on the list. Thus these areas of research need a major boost. Anaesthesia, Intensive Care and Pain Medicine have obvious important overlaps. ANZCA is the only organisation that is involved in all three areas.

ANZCA awarded research grants from funds subscribed by Fellows to the value of \$370,000 in 2003 via its Research Committee, under the Chairmanship of Professor Michael Cousins AM. However the funds available have provided for only a small percentage of applications and a major new initiative is now needed.

The ANZCA Foundation is the vehicle for this initiative. The Foundation has a community based Board and ANZCA has tax exempt status.

Major Research Challenges for the ANZCA Foundation

- **"Brain monitoring"** during anaesthesia is now becoming feasible. This new research will give us new insights into the way anaesthesia and the brain work, and could also prevent awareness under anaesthesia – one of the major fears of patients having surgery.
- **Development of Anaesthesia Simulators** and other sophisticated medical simulators shows great promise of major advances in training and re-training medical specialists in the management of "critical incidents" in health care, including in operating theatres, intensive care units, emergency rooms and many other settings.
- **New techniques and drugs** in sedation and anaesthesia for surgery and medical investigations which promote rapid and high quality recovery for patients.
- **Improved methods of prevention and treatment of postoperative problems** such as headache, vomiting, fatigue

and memory loss. Memory problems are common in elderly patients, particularly after heart surgery. Major research is currently under way by ANZCA Fellows investigating this problem.

- **Brain protection** following injuries such as trauma and lack of oxygen delivery has been a goal for many years. Research and clinical trials are needed to follow up new approaches.
- **Prevention of further lung injury** in critically ill patients requiring artificial ventilation is becoming feasible. Simple approaches can have dramatic improvements in outcome but much more research is needed to optimize ventilation and treat lung injury.
- **Acute renal failure and acute liver failure** remain major problems in critically ill patients. Supportive techniques need to be improved and new ones developed.
- **Acute circulatory failure** is common, with many scientific advances. However it is crucial that these advances are converted into useful therapies. This requires further work and clinical trials.
- New strategies to **fight infections**, a major cause of death in critically ill patients.
- A major attack on **cancer pain** in adults and children – eg. a study in the prestigious New England Journal of Medicine in the year 2000 found 89% of children suffered substantially from pain in their last month of life.
- Development of new strategies to attack the massive problem of **persistent pain** in non-cancer patients. A major study in Australia has reported that **one in five Australians** have severe persistent pain with an associated loss of 17.8 million work days each year; an NHMRC report estimated that this costs Australia over \$10B annually. The "team approach" of the five specialist bodies in the Faculty of Pain Medicine has received worldwide recognition as the key to attacking this massive medical, economic, societal and humanitarian problem.
- Further refinement and implementation of highly promising new methods for treating **acute pain** (eg. after surgery, trauma) to enable more rapid recovery ie "Acute Rehabilitation", more rapid discharge from hospital and substantial cost savings to the community.
- The prevalence of severe persistent pain increases sharply in the **older age population** (an increasing sector of Australians). New effective and well tolerated pain treatments are urgently needed.
- **Pain in children** has been a much neglected area and promising new work by ANZCA Fellows holds out new hope.

The Mission of the ANZCA Foundation

- To further increase the safety and comfort of patients undergoing anaesthesia
- To further improve the excellent outcomes for critically ill patients following surgery, trauma and life threatening medical problems
- To improve the treatment of acute pain, cancer pain and persistent non-cancer pain, focussing attention on **"Pain Relief as a Basic Human Right"**

Highlights from the Council Meeting

JUNE, 2003

EDUCATION AND TRAINING

Revised FANZCA Training Program

The Regulations and modules have now been finalised and are available on the web. The Learning Portfolio and modules are currently with the technical writer for editing and layout and will be distributed as soon as printed. A further series of Supervisor of Training workshops will be held in all Regions to assist with the practical details of implementation.

A total of nine Professional Documents related to training have been approved. These documents are enclosed with this Bulletin but your attention is particularly drawn to TE1 which has been significantly revised and also to new Professional Documents TE2, TE8 and TE10.

Regulations 14 and 15

Regulations 14 and 15 which relate to the administration of the Revised FANZCA Program have been approved. These documents have been forwarded to all Directors and Supervisors of Training in approved hospitals and are published on the College website. They will be also be distributed to trainees in the normal process.

Accreditation of Training

With the introduction of the Revised FANZCA, the College will accredit Hospital Departments and Training Programs, not posts.

Rural Rotations

The issue of Trainee rotation to rural areas as a compulsory component of anaesthesia training was considered by Council. However, as there is an inadequate number of rural positions to allow every Trainee to rotate to such a post, compulsory rural rotation is not possible. Council also noted that there are many sizeable institutions where no Trainee is anticipated, due probably to lack of funding. Council resolved to work with the State and Federal Governments to further develop training positions in rural areas in anaesthesia, intensive care and pain medicine.

Communication Skills

Council is reviewing various communications skills courses which may be of interest to Fellows and Trainees.

EXAMINATIONS

Final Examination – Clinical Vivas

Following the ongoing review of the Final Examination, Council approved the conduct of the clinical vivas by anaesthetists. In the past this viva has been conducted in

the presence of a physician and an anaesthetist. At the recent examination the medical vivas were conducted by anaesthetists only.

Workshops prior to the Primary and Final Examinations have continued to be conducted, with input from the College's Director of Education.

OTS Performance Assessment – Pre Examination Course

A pilot pre-examination course to assist candidates undergoing the Overseas Trained Specialist performance assessment process who have been unsuccessful at two previous attempts or who are working in isolated areas, has proved successful. It is anticipated that a structured course will be established to continue this initiative.

INTERNAL AFFAIRS

2004 College Diary

To permit the distribution of College diaries at an earlier time, it has now been resolved to delete the dates of Committee Meetings and Examinations and refer Fellows and Trainees to the College website for up to date information regarding these events.

ANZCA International Scholarships

The ANZCA International Scholarship for 2004, advertised in the current Bulletin, will be available to an anaesthetist or trainee (up to 40 years of age) who is destined to be a leader in their home country. Applications are invited from Papua New Guinea, Fiji and the South Pacific Islands. Applications from Myanmar, Vietnam, Laos or Cambodia will also be considered. The scholarship is intended to provide an opportunity for the anaesthetist to develop skills to manage a department and become competent in teaching others in their home country. The scholarship will be tenable for one year in a department of a major teaching hospital in Australia or New Zealand and covers travel expenses (which may include the scholar's spouse and children under 16 years) and a living allowance.

ANZCA Trainee Committee

Council has approved a recommendation that the College establish a Trainee Committee. This Committee has been formed following a recommendation from the Australian Medical Council in its review of College activities. It is proposed that trainees in each Australian Region and in New Zealand be requested to nominate a representative annually. These nominees will form a Committee and elect a Chairman. It is proposed that Regional Trainee meetings also be held, providing a forum for input to Council Committees.

The Trainee Committee will consider matters referred to it by Council and its Committees and will provide input to the Council via the Executive and the Education and Training Committee. In addition, it is expected that the Trainee Committee will consider issues relating to education and training and other matters affecting training, examinations, standards etc. It is anticipated that such a group will enable the College to be represented on outside committees at a trainee level. All costs pertaining to this Committee will be funded by the College.

It is planned that a face to face meeting will take place at the ASM and teleconferences convened throughout the year.

A Trainee Representative, Dr Andrew Messmer (ACT), has been appointed to the Education and Training Committee and he will attend his first meeting in July.

Obstetric Anaesthesia Services

A Joint Working Party comprising representatives from the College and RANZCOG has been established to formulate a Position Statement on obstetric anaesthesia services. The first meeting was scheduled for July.

ACHS – Clinical Indicators

The College has reconvened a Clinical Indicator Working Party to review the current indicators and the Obstetric Special Interest Group has been requested to advise on clinical indicators for obstetric anaesthesia and analgesia. The CE&QA Committee will oversee the Working Party. Dr Di Khursandi has been nominated to the ACHS Working Party on Clinical Indicators.

ANZCA Policy on Paediatric Anaesthesia

Council endorsed the following JCCA (ANZCA/RACP/ACRRM) policy on paediatric anaesthesia:

That endorsement for elective paediatric anaesthetics down to age 12 months may be granted on an individual practitioner basis after demonstration of the need for such endorsement and assessment/accreditation by regional representatives of the JCCA. Such endorsement to be related to the area of need, the individual's documented training in paediatric anaesthesia to the age of 12 months, and be dependent on the maintenance of professional standards.

Corporate Traveller

The Colleges comprising the Committee of Presidents of Medical Colleges have renegotiated a deal with Qantas for travel which will be administered by Corporate Traveller. These renewed negotiations allow Fellows, partners and families to also access the benefit of the discount offered to the College. An advertisement will be placed in the College Bulletin giving details. In summary, bookings made by Fellows or their families are accessed through a 1800 number and paid by credit card at the time of booking. The fares offered are purported to match internet fares and these discounts will also be available to trainees, examination candidates and families (see advertisement in this Bulletin).

Geoffrey Kaye Museum of Anaesthetic History

Council approved the recommendations in a report outlining the history and strategic plans with regard to the Geoffrey Kaye Collection and other archival artefacts held by the College. Ms Elizabeth Triarico is progressing to catalogue the collection, arrange the restoration, history and display of the Collection. It is anticipated that part of the Collection will be used in joint exhibitions with outside organisations and pieces to be loaned to outside exhibitions.

ANAESTHESIA CONTINUING EDUCATION COORDINATING COMMITTEE

ACECC Website

Council noted the launch and ongoing maintenance of the ACECC website which includes a central register of CME meetings, both local and abroad, details of previous meeting themes, venues and speakers, and guidelines for CME Meeting organisers. In addition, the website provides details of meetings being planned to avoid clashes of dates and/or speakers and website facilities for Special Interest Groups.

Special Interest Groups

Council approved the proposed Constitution for the Neuroanaesthesia and Anaesthetists in Management Special Interest Groups.

CONTINUING EDUCATION AND QUALITY ASSURANCE

Questionmark

This program has been purchased by the College to facilitate the self assessment modules for trainees in the Revised FANZCA. It is anticipated that the program will also be utilised for QA activities for MOPS.

Videoconferencing

CME meetings in Melbourne and Sydney had great support from over 20 sites with 325 participants. These have been most successful and it is planned that this facility will be included in as many future meetings as possible.

COUNCIL AWARDS

ANZCA Medal

The ANZCA Medal was awarded to:

Dr Sally Drew (SA)
Associate Professor David McConnel (QLD)

Council Citations

Council Citations were awarded to:

Dr Patricia Mackay (VIC)
Associate Professor David McConnel (QLD)
Dr Anton Neilson (QLD)

PROFESSIONAL

Hazard and Safety Alerts

Council has been concerned at recent fires in operating theatres and a means to alert Fellows to same. As such occurrences are usually under investigation which may take some time it has been agreed to alert Fellows via the web directing them to the appropriate publication for available details.

Recognition for Hyperbaric Training

Following a review of the Hyperbaric Unit at the Royal Hobart Hospital, this unit has been approved for training towards the Certificate in Hyperbaric Medicine awarded by the College.

PROFESSIONAL DOCUMENTS

The following Professional Documents were approved and promulgated.

These Documents are published in this Bulletin.

PS31 – *Recommendations on Checking Anaesthesia Delivery Systems*

PS49 – *Guidelines on the Health of Specialists and Trainees*

The TE Documents relating to training are enclosed as a separate document with this Bulletin.

TE1 – *Recommendations for Hospitals Seeking College Approval for Vocational Training in Anaesthesia*

TE2 – *Policy on Vocational Training Modules and Module Supervision*

TE3 – *Policy on Supervision of Clinical Experience for Vocational Trainees in Anaesthesia*

TE4 – *Policy on Duties of Regional Education Officers in Anaesthesia*

TE5 – *Policy for Supervisors of Training in Anaesthesia*

TE8 – *Guidelines for the Learning Portfolio for Trainees in Anaesthesia*

TE10 – *Recommendations for Vocational Training Programs*

TE13 – *Guidelines for the Provisional Fellowship Program*

TE17 – *Policy on Advisors of Candidates for Anaesthesia Training*

The following Professional Documents were withdrawn:

P11 – *Management of Cardiopulmonary Bypass*

PS27 – *Standards of Practice for Major Extracorporeal Perfusion*

PS36 – *Guidelines on Conscious Sedation for Regional Anaesthesia for Ophthalmic Surgery*

Honours and Appointments:

Prof Malcolm Fisher (NSW) - Officer of the Order of Australia General Division (AO)

Dr Heather Lopert (ACT) - Member of the Order of Australia General Division (AM)

Dr William Griggs (SA) - Member of the Order of Australia General Division (AM)

Professor Tony Gin (HK) - President, Hong Kong College of Anaesthesiologists

Annual Anaesthetic Registrars' Scientific Meeting

The 2003 Annual Registrars' Scientific Meeting was held on Friday, 18 July in the auditorium of "ANZCA House". This year the meeting welcomed College President, Dr Richard Willis, who also presented the prize for the best presentation.

This year saw a record number of presentations and, once again, the standard of work presented was very good. The meeting attracted an excellent number of registrants, fellows, trainees and members of the healthcare industry.

Dr Richard Bulach from the Department of Anaesthesia, Royal Melbourne Hospital, was awarded the \$500 prize donated by Anaquip (Vic) Pty Ltd for his presentation "Double-blind randomized controlled trial to determine the extent of any retrograde amnesic properties of midazolam immediately before general anaesthesia".

Many thanks to our Administrative Officer, Ms Corinne Millane, Dr David Bain, Formal Projects Officer, and College staff for their assistance and organization of the meeting. Also my thanks to those Fellows (Drs Adam Tucker, Glenn Downey, David Pescod, Mark Anderson and Clive Rachbuch) for their willingness to act as session chairs or judges.

A limited supply of the meeting abstract book remain and can be obtained by contacting the Victorian Regional Committee.

Mark Buckland
Convenor

Annual Combined ANZCA/ASA CME Meeting

The 24th Annual Combined CME of the Victorian Section of the Australian Society of Anaesthetists and the Victorian Regional Committee-ANZCA was held on Saturday, 19 July 2003 at the Sheraton Towers Southbank. The meeting "Current Concepts in Perioperative Care" attracted a larger than anticipated number of registrants including nineteen healthcare industry exhibitors. The meeting warmly welcomed College President, Dr Richard Willis who also presented ANZCA Citations and Supervisor of Training Awards.

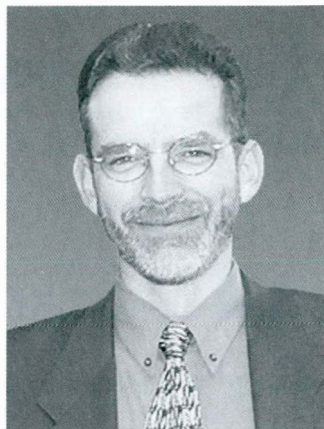
The program was a clinical update in Perioperative Care, covering pre-operative medication, fasting and cardiac investigation. The central role of the anaesthetist as a perioperative physician was presented along with a summary of the risks that our patients face. Emphasis was placed upon the need for a strategic risk management plan and the insurance and legal climate was discussed. Sessions on diabetes and post-operative cognitive decline were well received. Contributors included prominent local and interstate anaesthetists, academics and physicians.

Drs Peter McCall and Daryl Catt awarded and Dr Richard Willis presented ANZCA Citations to Drs Patricia Mackay and Kandasamy Vijayakumar (Dr Kumar). The recently created Supervisor of Training Certificate of Recognition was also presented by the President to seven Supervisors in attendance and will be mailed to Supervisors who were unable to be present.

The CME Organising Committee and Ms Corinne Millane, VRC Administrative Officer are to be applauded for a job well done!

A limited supply of surplus copies of the meeting abstract book remain and can be obtained by contacting the Victorian Regional Committee at the College.

Rowan Thomas
Convenor



Education Report

Russell W. Jones, Director of Education, ANZCA

The operating theatre is a rich educational environment replete with opportunities to teach Trainees. It is particularly valuable for FANZCA training because it allows Trainees to make connections between what they learn in theory and what this means in practice. Getting Trainees to “transfer” theoretical information and understanding to real live practical applications of knowledge, skill and attitude is one of the greatest educational challenges encountered by Trainees and by their Teachers. The operating theatre is an ideal location for facilitating this transfer. In addition, this environment is a good location for Trainees to learn: the art and practice of anaesthesia, specific skills and procedures, the monitoring of patients, how to function as a professional, and how to make clinical decisions. All this in a perfectly valid environment, that is, one which represents the true environment of an anaesthetist.

A major problem faced by Teachers in the operating theatre is to understand and apply their different roles whilst in a setting whose primary purpose is to perform safe surgical operations. In their recently published book *Clinical teaching: a guide to teaching practical anaesthesia* (Swets & Zeitlinger Publishers, Lisse, 2003) Greaves and his colleagues divide the activities of Anaesthetic Teachers into supervising and teaching:

Supervising:

- Keeping the patients safe
- Preventing the Trainee from making potentially dangerous decisions through ignorance
- Using expert skills to rescue situations that are beyond the capabilities of the Trainee
- Managing the work environment

Teaching:

- Showing the Trainee what to do
- Guiding the Trainee’s clinical decision making process
- Directing the Trainee’s attention
- Acting as a role model
- Determining learning objectives
- Developing problem solving skills
- Discussing the principles on which the science of anaesthesiology depends
- Developing learning situations
- Monitoring the Trainee’s progress in order to plan their future experience
- Assessing competence
- Checking that learning has occurred
- Encouraging reflection
- Encouraging self-assessment
- Giving feedback

It may be argued that each operation within each operating theatre is unique involving a distinct set of circumstances, combination of personnel and clinical concerns. This provides the Anaesthetic Teacher with an abundance of teaching opportunities (and the Trainee with an abundance of learning opportunities). While even the most skilled Teacher could not cover all aspects of supervision and teaching listed above, all Anaesthetic Teachers can choose at least one activity for any specific operating room procedure and ensure that a Trainee has a meaningful educational experience during the procedure. Those Teachers of Anaesthesia who are unsure about what specific teaching activities are expected of them may choose to scan the above list prior to entering the operating theatre, and to use this list as an aid to determining the specific educational activities they will conduct on any particular occasion.



Professor
Michael Cousins

Multicentre Clinical Trials Secretariat

In the November 2002 issue of the Bulletin, an article appeared entitled "ANZCA Research – New Initiatives". This article outlined plans to develop the ANZCA Foundation so that funding of research by ANZCA could increase (see separate article on the ANZCA Foundation). It also gave a report of work by the Research Committee to investigate the development of an "ANZCA Multicentre Clinical Trials Secretariat" (AMTS). ANZCA Fellows were invited to provide input on their views on the value of such a resource and to provide suggestions for the infrastructure required as well as suggestions for the most effective mode of operation.

At the recent ANZCA ASM, the Working Party for AMTS met again and finalised the recommendations for the operation of the AMTS.

WHO WILL BE INVOLVED IN AMTS ?

Potentially all Fellows will have an opportunity to be involved in AMTS by their participation in Multicentre Clinical Trials. They will also have an opportunity to suggest important clinical questions which should be subjected to clinical trials and to develop more detailed proposals for Multicentre Clinical Trials, to whatever stage of development they feel capable of providing.

Most importantly there will be a 'core group' of highly experienced clinical investigators, who have previously had experience in Multicentre Trials and also some of whom have experience and qualifications in the field of clinical epidemiology. I am delighted to announce that A/Professor Paul Myles will be the initial Chairman of the core group and there will be a wide representation of different fields of clinical research in the membership of the Committee which is provided below. The Chairman of the Committee will be responsible to ANZCA Council, via the Chairman of the ANZCA Research Committee. The Chairmanship will be for a limited tenure and the Chairman will be responsible for developing Multicentre Trials across a broad spectrum.

Multi-Centre Trial Sub Committee:

Chairman: Associate Professor Paul Myles

Members:

Dr Stephen Barratt	Professor John Rigg
Professor Andrew Bersten	Professor Stephan Schug
Associate Professor Kate Leslie	Dr Philip Siddall
Professor Guy Ludbrook	Dr Tim Short
Associate Professor Michael Paech	Dr David Story

WHAT WILL AMTS DO ?

- Utilise the core group to receive from ANZCA Fellows and to develop key questions of clinical importance suitable for Multicentre studies.
- Retain involvement of ANZCA Fellows who propose key questions and to develop protocols for Multicentre studies.

- Develop the sites for Multicentre studies, in collaboration with ANZCA Fellows.
- Formulate research submissions for funding (eg. by NHMRC).
- Guide proposals through various institutional Ethics Committees.
- Provide expert centralised resources for:
 - randomisation of study subjects
 - receipt and management of data
 - study site monitoring
 - data analysis and manuscript preparation for publication

DEVELOPMENT OF RESOURCES FOR AMTS

Plans are underway for the recruitment of an appropriately qualified research administrator/data manager. In the meantime Jill Horton is providing assistance to the Secretariat. It has been agreed that expert biostatistical assistance will be obtained on a contract basis from a leading university group. The AMTS Committee is in the process of identifying appropriate equipment for purchase and installation.

NEXT STEPS

ANZCA Fellows from Anaesthesia, Intensive Care and Pain Medicine are now urged to submit questions and or proposals for development of Multicentre studies in areas of interest to them. The AMTS Sub Committee will then further develop these questions to the stage where they are suitable for submission to various funding bodies. It should again be emphasised that a strong involvement of Fellows who submit material for consideration will be a major objective of the AMTS Sub Committee

It is recognised that a Multicentre Trials resource already exists which is affiliated with ANZICS. Considerable discussion has occurred regarding a productive dialogue with the ANZICS body and appropriate arrangements have been made to avoid overlap.

All Fellows are encouraged to make vigorous use of this valuable new resource within ANZCA for the following reasons:

1. Scientific evidence for clinical practice is increasingly becoming a greater priority.
2. Many of the important clinical questions can only be answered by Multicentre studies.
3. Funding by major bodies is increasingly being focussed on studies with sufficient power and this often means a Multicentre study.
4. As indicated in the associated article on the ANZCA Foundation, the image of our specialty depends significantly on the strength of the science that underpins clinical practice.

Michael J Cousins
Vice President ANZCA
Chairman, ANZCA Research Committee



Dean's Message

Leigh Atkinson

Unanswered Questions

"In seeking absolute truth we aim at the unattainable, and must be content with finding broken portions". Sir William Osler – *Aequanimatas*, H.K. Lewis, London, 1928.

On Friday, 20th June I joined other Fellows of our Faculty at a most enjoyable dinner at the New South Wales Museum of Modern Art. This was the Inaugural Presentation of over \$1 million in research grants by Pfizer Australia for 2002-2003. Applications for these awards are open to medical graduates who have gained higher degrees in the previous five years. The generous grants were awarded to research workers in psychiatry, neurology and pain medicine.

This evening highlighted for me the urgent need for Fellows of our Faculty in Australia and New Zealand to work together to expand our research horizons. We cannot leave these activities to a few public hospital academic units.

Trainees from our sister Colleges could be more attracted to pain medicine if there were expanded and funded opportunities for research. For example, in neurosurgery, advanced trainees must set aside a minimum of one year in research and already some have been attracted to pain medicine.

The advent of evidence-based medicine has encouraged all clinicians to carefully examine the basis and scientific support for a range of interventions and drug treatments. Pain is no longer a misunderstood metaphysical event that patient and doctor must complacently accept. Following the work of Melzack and Wall in the early 1960s, pain medicine has taken on a new scientific relevance. Australian researchers such as John Eccles, Arthur Duggan and Michael Cousins have contributed to the growing momentum for answers to these questions.

It is evident that the media and the population are becoming more curious and more demanding about the management of acute, chronic and cancer pain. Soon our health administrators must appreciate the need for a much

greater co-ordinated approach to the burden of pain in our ageing populations. The daily practice of pain medicine unravels increasing numbers of unanswered questions. Clinicians with daily access to these patients have the opportunity to co-ordinate multidisciplinary research teams to work on these projects.

With this in mind, the Australian and New Zealand College of Anaesthetists has launched the Multi-Centre Research Secretariat discussed elsewhere in this Bulletin. This office will support selected research programs by preparing research protocols, applications for funds and submissions to relevant ethics committees. Already 10% of each Fellow's subscription is passed to the ANZCA Foundation to provide a financial corpus for such research. The Faculty and the College will work to list available research funding bodies in our two countries. Apart from Pfizer, other opportunities exist with the Foundations or our sister Colleges, the hospital foundations and the Brain Foundation to mention a few. At a national level these initial funding bodies could lead on to grants from the National Health & Medical Research Council. Even international fellowships such as the Churchill Fellowship could be considered. In 2000, Dr Suellen Walker was awarded the IASP John J Bonica Trainee Fellowship indicating that there are other international opportunities.

As an educational body our Faculty also needs to be increasingly involved co-ordinating and facilitating access to research funds available in our countries. There are more and more unanswered questions in the growing field of pain medicine that Fellows in our emerging speciality need to consider.

A handwritten signature in black ink that reads "Leigh Atkinson". The signature is written in a cursive, flowing style.

Leigh Atkinson
Dean

Alternate Pathway to Fellowship of the Faculty

The Board of Faculty has agreed to offer an alternate pathway to Fellowship. This alternate pathway is to cater for individuals who have not had formal training in Pain Medicine during their primary specialty training and are not in a position to enrol prospectively in the Faculty's Training Program, but who have been actively engaged in Pain Medicine practice since obtaining their primary specialty Fellowship.

The Administrative Instruction for this alternative pathway is as follows:

Persons who are registered medical specialists in Australia or New Zealand may be admitted to Fellowship using the following criteria:

- Have not had formal training in Pain Medicine during their primary specialty training, and
- Are not in a position to enrol prospectively in the Faculty Training Program, but
- Have been actively engaged in Pain Medicine practice since obtaining their primary specialty Fellowship –

Will not be required to undertake the full Faculty of Pain Medicine Training Program as outlined in Faculty Professional Document PMI *Guidelines for Trainees and Departments Seeking Faculty Approval of Posts for Training in Pain Medicine*. However, they will be required to:

- Have been actively engaged in Pain Medicine practice for at least two years full-time equivalent since obtaining their primary Fellowship.
- It will be the role of the Assistant Censor to assess applications for admission to Fellowship by Election in accordance with AIs 4.3.1 to 4.3.5 to determine whether the criteria have been met or whether this alternate pathway may be offered.
- Should the applicant be offered this alternate pathway, they will be additionally required to:
 - Be registered as a trainee for six months prior to registering for the examination. Such trainees must pay the registration fee but are exempt from the annual training fee.
 - Satisfy the following Summative Assessment criteria:
 - A case report as outlined in the Training Manual.
 - Examination pass as specified in the Training Manual.
 - Administrative Instructions 4.3.6 to 4.3.16 to be followed.

This alternate pathway for admission to Fellowship will cease following the 2005 examination.

Please contact the Faculty for further information.

Admission to Fellowship

The following have been admitted to Fellowship by election:

Michael Anthony Ashby FRACP, FChPM, VIC
Peter George Courtney FANZCA, VIC
Katherine Alice Jackson FRCA, VIC
Tsun Woon Lee FANZCA, Hong Kong
Terence C Lim FAFRM (RACP), VIC

Committees

At a meeting of the Board on May 4, 2003 the following Fellows were appointed to Faculty Committees and Working Parties:

Education Committee

Chairman	M L Cohen
Representing ANZCA	J J Trinca
	C R Goucke
	J A Fleming
New Fellow Representative	J M Morgan
Representing RACP	R D Helme
	M J Butler
Representing RANZCP	F R Noore
	F J New
Dean and representing RACS	R L Atkinson
Representing AFRM (RACP)	B M Kinloch
	G C Booth
Chairman, Examination Committee	P A Briscoe

Examination Committee

Chairman	P A Briscoe
Representing ANZCA	L J Roberts
Representing RACP	R Garrick
Representing RANZCP	G Mendelson
Representing RACS	R L Atkinson
Representing AFRM (RACP)	C Arnold
Chairman, Education Committee	M L Cohen

Hospital Accreditation Committee

Chairman	C R Goucke
	P A Briscoe
	R D Helme
	R L Atkinson
	J A Fleming

MOPS Officer

R D Helme

ASM Officer

G I Rice

Paediatric Pain Medicine Working Party

Chair	M J Craigie
	G A Chalkiadis
	S M Walker

Palliative Medicine Working Party

Chair	P J Glare
	J Agar-Wilson
	R Chye
	D J Gorman
	T R Cramond
	B E Williams
	M J Craigie
	C R Goucke

The Board also welcomes input from other Fellows who wish to participate in Faculty issues. Please contact a Board member should you wish to discuss this further.

Case Report

The following case report and mini-review by Dr Lorna Fox, was submitted in 2002 for assessment as part of her training requirements towards Fellowship of the Faculty. Assessors are asked to assess a case report as they would for a journal article, enumerate the specific changes required or fail with suggestions as to how the case report may be improved. This case report was assessed as a pass. The Assessors cannot be held responsible for errors or any consequences arising from the use of information contained in this case report. The views and opinions expressed do not necessarily reflect those of the Assessors or the Faculty.

Title

Case Report and Mini-Review: Acute Pain Management and Postoperative Outcome

SUMMARY

This case describes the acute pain management of a patient having a colectomy whose postoperative recovery was complicated by an acutely ischaemic leg requiring further surgery, a myocardial infarction with heart failure and an exacerbation of gout. The acute management of each cause of pain is considered with discussion of the effect of analgesia on the surgical and medical outcome.

INTRODUCTION

Pain management is no longer simply humanitarian symptomatic treatment. Pain itself is now known to be more than just a signal of actual or potential harm, but harmful in itself, with adverse physiological and psychological effects causing significant morbidity and even mortality^{1,2}. Pain relief may be a powerful tool in improvement of postoperative outcome³. The hypothesis is simple, are the harmful effects of pain reduced if the patient is shielded from the nociceptive input? The experience with this patient would support the hypothesis.

Multimodal pain management may have benefits^{4,5,6,7}, but it also carries risks, including the potential for interaction with other therapies. Postoperative myocardial infarction is common in patients with cardiovascular risk factors having major non cardiac surgery⁸. The current guidelines for management of myocardial infarction⁹ make it impossible to continue with multimodal analgesia, which includes neuraxial blockade¹⁰. This case illustrates the problem of pain management in such a situation.

CASE HISTORY

A 74-year-old man with a carcinoma of the rectosigmoid junction presented for colectomy. He gave a six-month history of an increasing sensation of inability to empty his bowels and excessive flatus. He had no pain pre-operatively. His past history included ischaemic heart

disease with unstable angina 3 months previously, gout, obesity (BMI 37.2 at 168cm tall), cataracts and varicose veins. His angina was worse in cold wind. He played bowls and could climb two flights of stairs with mild shortness of breath. He had no surviving relatives and lived alone in a caravan, relying on the owner of the mobile home park for a telephone. He required no other home help.

On examination he had trunkal obesity and a large diameter neck. Cardiovascular and respiratory examination was normal except for moderate ankle oedema and decreased breath sounds at both lung bases.

Investigations were normal except for uric acid 0.61mmol/L (normal range 0.15-0.5mmol/L) and his ECG which showed sinus rhythm with a rate of 46 beats/min with left ventricular hypertrophy.

His daily medications were atenolol 50mg, colchicine 0.6mg, isosorbide mononitrate 120mg, aspirin 150mg, felodipine 5mg and GTN sublingual spray as needed. He was allergic to penicillin and diclofenac gave him "stomach upset".

His anaesthetist assessed him in clinic as American Society of Anaesthetists Classification grade 3 and New York Heart Association functional classification grade 3 with medium to high risk of complications. His aspirin was stopped one week prior to surgery.

On the day of surgery he received his other normal medications and was premedicated with 7.5mg oral midazolam. In theatre he had continuous monitoring of cardiovascular, ventilatory and respiratory functions, fluid balance, anaesthetic gas and volatile delivery. A 16g epidural catheter was easily inserted (awake, using local anaesthesia of the skin & subcutaneous tissue) at the level of his second and third lumbar intervertebral space, leaving 3cm in the epidural space.

He had a combination of a general anaesthesia, with intubation and ventilation, and epidural anaesthesia for the colectomy. A drop in systolic pressure to 80 mmHg (normal for him was 120 mmHg) followed the first epidural bolus of 5ml of 0.5% bupivacaine. Ephedrine 6mg intravenously (IV) and fluid boluses were required. Two subsequent doses of 10mls 0.125% bupivacaine did not affect his blood pressure. The size and weight of his abdominal wall complicated the sigmoid colectomy. In 3 hours of surgery he lost 2L of blood and passed 260mls of urine. During the operation he was given 2L of crystalloid intravenously, 500ml of colloid and a blood transfusion was started to keep his haemoglobin level above 90g/L. An epidural infusion of ropivacaine (amide local anaesthetic)

2mg/ml and fentanyl (synthetic opioid) 2mcg/ml was started at 6ml/hour via an infusion pump at the end of the surgery.

The muscle relaxant was reversed and once he was breathing adequately the endotracheal tube was removed. He was taken to Intensive Care (ICU, which is combined with Coronary Intensive Care in this hospital) for postoperative monitoring.

He had an epidural sensory block height, to ice testing, covering the dermatomes T5-L2 bilaterally, without motor block. He was comfortable and could deep breath without pain. He was alert and co-operative. All observations were within normal range except haemoglobin of 95g/L.

Nine hours later, at 2am, his right leg and foot were found to be pale, cool and numb but not painful. There was normal motor function of his legs. Epidural block height was T5-L2 on the other side and T5 with no lower block level on the right. An hour later his right leg became very painful with a Visual Analogue Pain score, (VAS) 10/10, where 0 is no pain and 10 is the worst pain imaginable. He was now unable to move the leg and it was noted to be pulseless. IV morphine boluses were given, for leg pain. A glyceryl trinitrate infusion of 20mcg/hour IV was started for his ischaemic leg.

Angiography showed a plaque in the abdominal aorta and acute occlusion of "much of the profundus femoris". Thrombolysis with rt-PA (recombinant human tissue-type plasminogen activator) was considered and rejected as it was "not technically possible" according to the radiologist, and a femoral embolectomy was performed under epidural anaesthesia (100mg 1% ropivacaine and 200mcg of fentanyl) and midazolam (5mg) sedation.

Later that morning the Acute Pain Nurse noted that the pain from his sigmoid colectomy and embolectomy was well controlled by the epidural infusion at 6ml/hour. Other observations were in normal ranges. The surgeons started enoxaparin sodium (a low molecular weight heparin-LMWH) 40mg subcutaneously (SC) that evening for deep vein thrombosis (DVT) prophylaxis. Still taking nil by mouth (24 hours post colectomy).

At 2300 the block height had risen to T2-3 bilaterally. The epidural infusion was stopped, according to our Pain Service guidelines. He had no motor block, and his other observations were normal, including blood pressure, except for central venous pressure of 15cmH₂O (normal <3cmH₂O). By 0100 he had no sensory block and no analgesia. Ten minutes later he started complaining of central dull chest pain radiating into his left arm which lasted for more than 80 minutes, associated with shortness of breath, anxiety and reduced oxygen saturation despite oxygen supplementation. He was pale and clammy, tachypnoeic, heart rate 100 beats/min and with raised blood pressure 158/77mmHg. "Crepitations to mid zones" were heard in the lungs and a 12 lead E.C.G. showed ischaemia in leads V₂ - V₆ with depressed ST segments and inverted T waves. The medical registrar diagnosed unstable angina with pulmonary oedema and

increased the enoxaparin to 80mg SC twice daily, gave him frusemide 60mg I.V, followed by regular frusemide, increased his glyceryl trinitrate infusion to 45mcg/hr (for cardiac ischaemia rather than leg ischaemia) and asked for aspirin to be started as soon as he was able to take oral medications. His epidural infusion was restarted.

His chest pain was relieved and his pulmonary oedema cleared. An immediate troponin I level of 1.5ng/mL (normal <0.10ng/mL) and one of 15ng/mL eight hours later confirmed a non Q wave myocardial infarction and the following morning the medical specialist restarted his aspirin and atenolol in consultation with the surgeons. His epidural continued at 10mls/hour.

At the morning review by the Acute Pain Nurse he was noted to be comfortable, alert and cheerful, no motor block, and the epidural block height to ice was T₇ - L₂ bilaterally. The epidural insertion site was clean and dry, he had normal pressure areas. He continued to be both pain free and cardiovascularly stable.

24 hours later, after the weekend, on day 4 post operatively (day 2 post myocardial infarction). He was feeling "100% better" and sitting out of bed. He had no pain in his abdomen or chest, however, he was beginning to complain of pain in his right knee, calf and ankle. There were no other signs of repeat thromboembolisation, except unilateral motor block (he was unable to lift his right leg from the bed). A sensory block height to ice was bilaterally T₇ - L₂. A right lower limb ultrasound confirmed patent vessels and normal flow.

The Acute Pain Specialist noted that he was on a combination of therapeutic doses of enoxaparin, aspirin and with an epidural infusion running. He had had no further chest pain and after consulting the physicians the enoxaparin was stopped. Hourly block heights and motor block checks were reinstated. Prothrombin INR was 1.3 (normal range 0.8-1.2), APTT was 37 seconds (normal range 23-33), fibrinogen > 6.0 (normal range 1.7-4). There was no overt bleeding.

Urgent contingency plans were made for (1) further chest pain; i.e. transfer for angioplasty (2) evidence of epidural/spinal haematoma; i.e. transfer to Neurosurgical Unit for decompression.

He continued to complain of pain in his right knee and ankle, despite an otherwise working epidural. He had no abdominal pain nor chest pain, nor further episodes of pulmonary oedema. His coagulation profile remained abnormal for 48 hours (worst INR 1.3, worst APTT 75, fibrinogen assays >6). His epidural catheter was eventually removed on day 6 post sigmoid colectomy. He was discharged to the general ward on oral aspirin 100mg BD, frusemide 20mg B.D. accupril 5mg O.D., atenolol 100mg O.D. imtrate 120mg O.D. omeprazole 40mg B.D. paracetamol 4g/day OD and tramadol Patient Controlled Analgesia (PCA) IV

Further enquiries about his leg pain revealed that it was similar to his gout pain, for which he had been on

colchicine pre-operatively. The knee was swollen and tender, with pain 8/10 on VAS exacerbated by movement. After consulting the surgeons re the stability of the bowel anastomosis (colchicine side effects are dose related nausea, vomiting and diarrhoea) he was started on colchicine 600mcg, PRN 2-3 hourly until diarrhoea started. He had six doses in the next 24 hours with one episode of vomiting. Plasma urate was retrospectively measured at 477mmol (210-505), falling to 371 after colchicine (this can be paradoxically normal during an attack). However, his gout pain was unrelenting.

His tramadol PCA was changed to morphine and a non-steroidal anti-inflammatory drug was started at a small dose, tilcotil 20mg IV with misoprostol 200mcg B.D. Daily renal function monitoring was recommenced. His pain reduced to tolerable levels. This enabled him to begin fully co-operating with the physiotherapists by day 8 post sigmoid colectomy.

He made a slow recovery complicated by episodes of angina and was discharged on day 27.

DISCUSSION

PAIN MANAGEMENT AND POST-OPERATIVE OUTCOME

It has long been hypothesised that a reduction in the surgical stress responses (endocrine, metabolic and inflammatory) will lead to a reduced incidence of postoperative organ dysfunction and thus to improved outcome. Pain, by the afferent neural stimuli and activation of the autonomic nervous system and other reflexes, may serve as a major release mechanism of the endocrine metabolic responses and thus pain itself could contribute to the various organ dysfunctions that occur after surgical trauma. Pain relief may be a powerful technique to reduce these stress responses³.

Only regional anaesthesia, preferably continuous techniques with local anaesthetic, causes substantial reduction in the stress response. The duration of epidural local anaesthesia is important; it should be at least 24 hours, preferably 48hours², or for as long as pain is affecting the response.

Although epidural opioids will reduce pain via effect on spinal and brain opioid receptors, they are less effective at reducing the stress response and are comparable with systemic opioid techniques and NSAID use. IV opioids via PCA devices have been shown in meta-analysis¹¹ and more recent randomized trials¹² not to reduce postoperative complications or hospital stay duration. High dose opioid anaesthesia suppresses intraoperative, but not the postoperative stress responses².

NSAIDs have little effect on the surgical stress response and organ dysfunction, despite their anti-inflammatory action^{2,3} and there are no meta-analyses on NSAIDs and outcome other than analgesia.

EPIDURAL ANALGESIA FOR ABDOMINAL SURGERY

Epidural local anaesthetic produces variable degrees of autonomic, motor and sensory blockade, this latter is demonstrable by lack of sensation of cold in a dermatomal distribution.

This patient had a lumbar catheter with sensory block levels consistently in the thoracic dermatomes. This is unusual for a lumbar catheter at these volumes (personal observation). As it is the block height, rather than the site of catheter insertion that determines the effects of the epidural infusion on the cardiovascular, respiratory and neuroendocrine systems, this is referred to as a thoracic epidural in this discussion.

Thoracic epidural analgesia with a combination of local anaesthesia and opioids is recommended for patients having colectomy because better analgesia can be achieved when compared with parenteral opioids^{13,14,15,16,17}, or epidural local anaesthetic alone^{18,19}.

Postoperative ileus can last for several days and prolong hospitalisation and convalescence. The main pathogenic factor is activation of inhibitory splanchnic reflexes^{2,20}. These reflexes are modified by continuous thoracic epidural local anaesthesia/ analgesia and reduced ileus has been confirmed in randomized controlled studies.^{15,19,22,23,24} A significant reduction in ileus was also found in some studies of lumbar epidural local anaesthesia,²⁴ and in studies of epidural analgesia using mixed opioid and local anaesthesia compared with systemic opioid^{15,16}. This latter effect may also be due to the reduced opioid requirements and thus reduced opioid side effects²⁵. However, no reduction in ileus has been found in studies of epidural opioid alone, compared with systemic opioid, despite the potential for reduced opioid dosage²⁶. Techniques which reduce postoperative ileus may have major clinical impact as they would assist with early enteral nutrition, which has been shown to improve postoperative morbidity². Earlier discharge may also be possible, with earlier recovery of bowel function²⁰. However, other factors e.g. surgical preferences regarding the use of drains, feeding and mobilisation also impact on the length of hospital stay. Only a concerted, integrated, multidisciplinary approach to analgesia and postoperative rehabilitation could significantly reduce postoperative stay^{3,27}.

The relative increase in parasympathetic tone and therefore increased gastrointestinal motility, associated with local anaesthetic epidurals does not increase the risk of anastomotic dehiscence after colonic surgery²⁸.

Epidural analgesia with local anaesthetic, or local anaesthetic and opioid mixtures has been shown to provide a reduction in postoperative pulmonary morbidity in major abdominal procedures^{3,29,30}. Opioid only epidural analgesia and thoracic procedures have not been adequately appraised yet³. This patient did not suffer any clinically significant postoperative pulmonary morbidity.

EPIDURALS, THROMBOEMBOLISM AND MANAGEMENT OF THE ISCHAEMIC LIMB

Despite the effectiveness of the epidural for his abdominal pain, he suffered severe pain with his ischaemic leg. Either the sensory block was not low enough to cover the appropriate dermatomes, which is difficult to ascertain because of the phenomenon of ischaemic numbness, or the pain was of such intensity that it broke through the analgesia provided by the chosen concentrations of local anaesthetic and opioid. This latter phenomenon has been described in regard to ruptured uterus and compartment syndrome in patients with otherwise working epidurals^{31,32} hence IV morphine was chosen for the initial analgesia. A recent meta-analysis³⁰ demonstrated a reduction in deep venous thrombosis by 44% and pulmonary embolism by 55%. This meta-analysis used mainly old studies, 93% prior to 1991, when the use of routine DVT prophylaxis was less frequent. The reduction on thromboembolic phenomena is attributed to the reduction in intraoperative blood loss, increase in venous blood flow, decreased coagulability and increased fibrinolysis after neuraxial anaesthesia, and does not occur with opioid only epidural techniques. No significant positive effects have been observed with continuous thoracic epidural local anaesthetic effects after major abdominal procedures³. Hence this patient would not have been protected against the occurrence of venous thromboembolism.

However, epidural analgesia and anaesthesia can improve the outcome associated with vascular surgery for ischaemic limbs with arterial compromise. A randomised controlled trial of 100 patients undergoing elective lower limb vascular surgery compared cardiovascular and other outcomes for general anaesthesia (GA) plus intravenous analgesia vs. epidural anaesthesia continued for post-operative analgesia³⁴. The only demonstrable difference was that the re-operation rate for inadequate tissue perfusion was significantly lower in the epidural group (2 patients vs 11 in the GA group) even at 6 weeks post surgery. This was attributed to the increased blood flow in the lower limbs and reduced catecholamine response to surgery or pain associated with epidural analgesia.

Emergency thrombolysis using rt-PA is becoming a common technique for limb salvage in acute ischaemia. There is evidence of early reduced mortality, i.e. 58% vs 84% $p=0.01$; odds ratio (95% CI) 0.28(0.13-0.63) largely associated with reduced in hospital cardio-respiratory complications and less amputation compared with surgery but no difference at one year. There is also evidence of increased risk of ongoing limb ischaemia and haemorrhagic complications³⁴ Thrombolysis is usually contraindicated in post surgical patients and, by extrapolation, probably patients where an epidural catheter or needle is planned or in situ (no data available) for at least 10 days. New techniques, such as rt-PA, performed by enthusiasts can be dangerous if not all of the possible interactions are considered, ie with the epidural. Fortunately in this case, the radiologist considered it not technically possible to use rt-PA for the acutely obstructed femoral artery.

POST-OPERATIVE MYOCARDIAL INFARCTION AND EPIDURALS

Post-operative myocardial infarction (MI) is a major cause of death after anaesthesia and surgery. There is an incidence of 8.7% angina and 1.1% MI postoperatively in patients with known ischaemic heart disease versus 4.5% angina and <0.7% in patients without. Predictors of high risk include congestive heart failure, long operation time (> 3 hours) upper abdominal surgery and major vascular surgery⁸. This patient had a risk of myocardial infarction post surgery as he had both known ischaemic heart disease, with LVH, with reduced exercise tolerance and prolonged major abdominal surgery³⁵.

On the second night post colectomy this patient then went on to have several "high risk features" for unstable angina. Unstable angina can be classified into various risk groups⁹ with high risk features including, ongoing chest pain > 10 minutes, ST depression >0.5mm in 4 ECG leads, elevated serum markers of myocardial injury and associated heart failure. This high-risk group normally has a greater than 10% risk of myocardial infarction or death within 6 months. As the mortality from post-operative myocardial infarction can be very high (36-70%)⁸,

treatment aimed at preventing unstable angina from becoming infarction was imperative.

Myocardial infarction is usually due to platelet aggregation, vasoconstriction and thrombus at an atheromatous plaque in a coronary artery. Sudden increases in myocardial oxygen demand (eg due tachycardia or hypertension such as occurred after his epidural blockade had worn off, immediately prior to his MI) or reductions in oxygen supply (hypotension, hypoxaemia or anaemia) can precipitate myocardial infarction in patients with ischaemic heart disease³⁶. Hypertension can increase the myocardial oxygen demand and reduce it's supply by sympathetic vasoconstriction and, in the failing ventricle, the increased ventricular end diastolic pressure exceeds the arterial diastolic pressure thereby reducing the coronary perfusion further in a vicious downward spiral.

Epidural analgesia has the potential both to reduce myocardial oxygen demand (reduction in sympathetic activation and stress response³⁷ and to increase myocardial oxygen supply (reduction in hypoxaemic episodes, reduction in postoperative hypercoagulable state, and reduction in coronary vasoconstriction)³⁸.

These effects require local anaesthetic blockade of cardiac fibres T1-T5. This beneficial effect has been used in non randomized trials to successfully relieve angina that was refractory to medical treatment or in patients who were not candidates for coronary artery bypass grafting or interventional catheterisation^{39,40}.

A meta-analysis³⁰ of randomised studies, including 9559 patients in 141 trials concluded that central neuraxial blockade reduces the risk of post-operative myocardial infarction by 30% and mortality by 30%. These findings were predominantly after major orthopaedic, rather than abdominal procedures, and this meta-analysis could be

criticized for using small studies (81% had < 50 patients) However, the cumulative data from studies suggest a clinically relevant reduction in cardiac morbidity post abdominal surgery³.

In a randomised, controlled trial study of peri-operative ischaemia in aortic surgery comparing patients with and without epidurals, termination of the epidural blockade at 48 hours post surgery was associated with a burst of ischaemic ECG episodes e.g. abnormal ST segment depression or elevation lasting more than 60 seconds⁴¹.

It is tempting to speculate that if this patient had not had his epidural turned off for a high block height he may not have had a myocardial infarction. The combination of atherosclerotic coronary artery disease, postoperative hypercoagulability and sudden increase in adrenergic tone resulting in altered myocardial oxygen supply and demand would make ischaemia, if not infarction almost inevitable.

PAIN MANAGEMENT PROTOCOLS

The use of pre-printed orders, procedures and protocols or practice guidelines is one facet of the organisational aspect of an effective Acute Pain Service⁴². Algorithms are constructed for the use of less experienced members of staff to enable them to safely care and provide analgesia for patients⁴³. These algorithms are often shared with other institutes and modified for local use.

Extremely high epidural local anaesthetic block can result in severe hypotension, bradycardia (if the cardiac nerves are affected) respiratory compromise, loss of consciousness and ultimately, cardiac arrest and death. Pain services should have a protocol to manage or avoid this potential complication⁴².

The hospital Acute Pain Service guideline for management of a high block has become more detailed in an attempt to avoid the complete loss of epidural analgesia after the infusion has been turned off for a high block. If a patient is otherwise well, ie normal cardiovascular and respiratory parameters, then the epidural is stopped, monitored more frequently and restarted at a lower rate as soon as the desired sensory level has been reached.

TREATMENT OF POSTOPERATIVE MYOCARDIAL INFARCTION, A CLASH OF PROTOCOLS

The current recommended medical treatment of unstable angina or non-Q wave MI is with enoxaparin 1mg/kg BD and aspirin 100-325mg/day for a minimum of 2 days, continued until clinical stabilisation, with a usual treatment of 8 days⁹. Aspirin reduces the progression of unstable angina to myocardial infarction^{44,45,46} and cardiac mortality by about 50%⁴⁷ and enoxaparin is superior to unfractionated heparin in reducing death and MI⁴⁸. Unfortunately these treatment recommendations are contraindicated by international consensus guidelines regarding neuraxial blockade and LMWH⁴⁹ because of the increased risk of an epidural haematoma. The contraindication is a balance of risks, between the worse outcome of an MI if not treated with anticoagulation and epidural haematoma if anticoagulants are used.

LMWH, ASPIRIN, EPIDURALS AND THE RISK OF EPIDURAL HAEMATOMA

Epidural haematoma is a rare but potentially catastrophic event. The haematoma must be suspected, diagnosed, evacuated and the pressure effect on the spinal cord relieved within a few hours to prevent permanent serious neurological damage¹⁸. As with any rare event, the exact incidence and the effect of changing medical practice is hard to quantify, as trials involving enormous numbers of patients are needed. The best estimate for risk of epidural haematoma after epidural analgesia is 1 in 150,000 at the upper 95% confidence interval⁵⁰. The incidence of spinal/epidural haematoma has increased in recent years, possibly with the increase use of neuraxial blockade in patients with altered coagulation. The incidence is 1 in 3100 when continuous epidural analgesia is used with LMWH cover.⁵¹ At least 40 cases of spinal haematoma have been reported in the USA with this combination. These were probably related to early or intraoperative or early post-operative administration, a twice daily dosage and concomitant anti-platelet therapy, as the European experience is quite different, with lower total daily dose and a once daily schedule. Epidural haematoma seem to be a greater risk at times of peak activity of the LMWH and associated with epidural catheter insertion or removal⁴⁹.

Placing an epidural in a patient on aspirin therapy alone is relatively safe. This is supported by large studies involving obstetric and surgical patients^{52,53}. Placing an epidural in a patient on a low dose, prophylactic once daily dose LMWH alone does not seem to increase the rate of epidural haematoma⁴⁹. The combination epidural with aspirin and LMWH, or the use of twice daily LMWH, or a therapeutic dose of a LMWH seem to carry the highest risks for epidural haematoma.

Unfortunately, this patient did have 2 days of enoxaparin 40mg for his high-risk DVT prophylaxis and 2 days of 80mg post-infarction with aspirin. The effects seemed to persist for 3 more days, as demonstrated by his abnormal activated partial thromboplastin time (aPTT). The increase in aPTT and activated clotting time (ACT) are not linearly related to the antithrombotic activity of enoxaparin, thus they are not usually recommended for monitoring this activity. Theoretically, protamine, could have been used at 1mg per 1mg of enoxaparin given to reverse the antithrombotic effect. However this is only a partial reversal (about 60%)^{54,55} and as he had just had an MI and a femoral thromboembolus it was decided to wait until all parameters were normal before removing the epidural catheter.

MANAGEMENT OF HIS ACUTE GOUT

His gout had been forgotten until he presented with an acute exacerbation after being nil by mouth for 6 days and therefore not receiving his normal oral colchicine. The presenting symptoms of knee and lower leg pain were not absolutely typical of gout. However, patients with serious intercurrent illness can develop polyarticular gout and the diagnosis is frequently confused with septic arthritis⁵⁶.

In this patient the gout was initially attributed to possible further vascular compromise. Acute gout can also be precipitated by intercurrent illness, thiazide diuretic (this patient was on a loop diuretic) therapy and low dose aspirin therapy⁵⁶. Aspirin interferes with renal proximal tubule handling of uric acid, with low doses reducing uric acid clearance (higher uric acid blood levels) and higher doses doing the opposite. The tramadol PCA post epidural was chosen to reduce the chances of opioid induced ileus and sedation⁵⁷. However it gave inadequate analgesia for his gout. He had been passing flatus for 2 days and so oral colchicine was restarted (5 days after his bowel anastomosis). This was also inadequate for his pain. Tilcotil IV, a NSAID, was then given as this would reduce both the inflammation and his opioid requirements⁵⁸. The NSAID was given at a lower than usual starting dose for acute pain,⁵⁹ because of risk of fluid retention/overload in this patient with myocardial failure treated with diuretics post myocardial infarction^{58,59}. The misoprostol was added as gastric protection as he gave a history of non-tolerance of NSAIDs due to gastrointestinal side effects⁶⁰. This combination was successful, and had no adverse effects on either his renal or cardiac function.

OPERATIONAL ISSUES

The use of epidurals post-operatively is increasing in our hospital as benefits on outcomes other than analgesia have been demonstrated, especially in the more medically compromised patient³⁰. Careful attention to detail, with guidelines, regular education of staff and regular review by an Acute Pain Service has shown that epidurals can give high quality analgesia, with no more risk of serious problem than parenteral opioids^{61,62,63}.

All new nursing staff and junior medical staff receive compulsory education on the subject of pain management, including, "safety with analgesia" exams. Regular recertification is required by the pain service. Guidelines for the safe use of LMWH and Neuraxial blockade⁴⁹ had been discussed, circulated, and were available on the epidural prescription chart. The Acute Pain service and daily reviews of patients with epidurals by the acute pain nurses had been running for less than 6 months when this case occurred. The potential significance of the antiplatelet/ anticoagulant/ epidural mixture was not picked up until after a weekend, on day 2 post myocardial infarction.

The specific precise anticoagulant management of a patient with a postoperative myocardial infarction had not been included in the pain service protocols. The author of the pain service protocols had not foreseen that cases requiring prescription of full therapeutic doses of LMWH and aspirin would occur, nor that the physicians would have limited understanding of epidural management, demonstrating that protocols or practice guidelines are only useful if people read them, and even if people do read them they may not understand the full implications. The guidelines are now also on the hospital intranet and in the Preferred Medicines List. As a consequence of this patient's experience the Acute Pain Service now offers training to more senior staff. The medical registrars,

specialist physicians and radiologists are included in the education programs, and the pain nurses are more experienced and vigilant.

CONCLUSION

In choosing to use multimodal analgesia, monitored by an Acute Pain Service, it was hoped that there would be improved analgesia and postoperative outcome, with possibly reduced intensity of side effects.^{4,5,6,27} Each type of pain intervention was chosen with reference to the medical state of the patient, the cause of the pain and any expected side effects and likely interactions.

The patient was involved in as much of the decision making as possible, however, the management of pain for this patient was complicated by several post-operative problems. Luckily he sustained no harm from his epidural, despite the risk for potential negative outcome. He could have been managed more safely if all of the medical & nursing staff involved in his care had been fully aware of the risks associated with thrombolysis, combined anti-platelet, anticoagulation therapy and neuraxial blockade. Universal access to information and more widespread education programmes have been instituted.

The current guidelines for treatment of unstable angina/ myocardial infarction recommend a combination of drugs that are contraindicated with an epidural in situ⁴⁹. The unanswered and possibly unanswerable question is 'Would effective thoracic epidural analgesia for patients at high risk for post-operative myocardial infarction reduce the cardiac morbidity and mortality as much or more than the current best medical treatment for an infarct once it has occurred?'

1. Cousins MJ, Phillips GD (eds) *Acute Pain Management. Clinics in critical care medicine.* Churchill Livingstone, Edinburgh 1986.
2. Kehlet H, Modification of responses to surgery by neural blockade: clinical implications, In: Cousins MJ, Bridenbaugh. Eds. *Neural Blockade in Clinical Anaesthesia and the Management of Pain*, 3rd edition Philadelphia: Lippincott-Raven, 1998;129-71.
3. Kehlet H, Holte K. Effect of postoperative analgesia on surgical outcome. *Br J Anaesth.* 2001;87:62-72.
4. Kehlet H, Dahl JB. The value of multimodal or balanced analgesia in postoperative pain treatment. *Anesth Analg* 1993;77:1048-55.
5. Kehlet H, Dahl JB. Postoperative pain. *World Journal of Surg* 1993;17:215-9.
6. Kehlet H, Surgical stress: The role of pain and analgesia. *Br J Anaesth* 1989;63:198-195.
7. Kehlet H, Multimodal approach to control postoperative pathophysiology and rehabilitation. *Br J Anaesth* 1997;78:606-17.
8. Mangano DT, Perioperative cardiac morbidity. *Anesthesiology*;72:153-84. 1990
9. Aroney NB, Jelinek MV, Thompson P, Tonkin AM, White H. Management of unstable angina guidelines-2000. *Med J Aust* 2000;173:S66-S88.
10. Horlocker TT, Wedel DJ. Neuraxial block and low molecular weight heparin: balancing perioperative analgesia and thromboprophylaxis. *Regional Anesth Pain Med* 1998;23(6) Supp2:134-177.

11. Ballantyne JC, Carr DB, Chalmers TC, Dear KB, Angellilo IF, Mosteller F. Postoperative PCA: meta-analysis of initial randomized controlled trials. *J Clin Anesth*;5:182-93.1993
12. Nitschke LF, Schlosser CT, Berg RL, Selthafner JV, Wengert TJ, Avencilla CS. Does PCA achieve better control of pain and fewer adverse effects than IM analgesia? A prospective randomized trial. *Arch Surg* ;131:417-23.1996.
13. Boylan JF, Katz J, Kavanagh BP et al. Epidural bupivacaine-morphine analgesia versus patient-controlled analgesia following abdominal aortic surgery: analgesic, respiratory and myocardial effects. *Anesthesiol* 1998;89: 585-93.98
14. Bredtman Rd, Herden HN, Teichmann W et al epidural analgesia in colonic surgery : results of a randomized prospective study. *Br J Surg* 1990;77: 638-42
15. Liu SS, Carpenter RL, Mackey DC et al. Effects of post-operative analgesic technique on rate of recovery after colon surgery. *Anesthesiol* 1995;83:757-65.
16. Mann C, Pouzeratte Y, Boccaro G, et al Comparison of intravenous or epidural patient controlled analgesia in the elderly after major abdominal surgery. *Anesthesiol* 2000;92:433-41.
17. Motamed C, Spencer A, Farhat F, Bourghain JL, Lasser P, Jayr C. Postoperative hypoxaemia: continuous extradural infusion of bupivacaine and morphine vs patient controlled analgesia with intravenous morphine. *Br J Anaesth* 1998;80:742-7.
18. Wheatley RG, Schug SA, Watson D, Safety and efficacy of postoperative epidural analgesia. *Br J Anaesth* 2001;787:47-61.
19. Jorgensen, H. Wetterslev, J. Moinicke, S. Dahl, JB. Epidural local anaesthetics versus opioid-based analgesic regimens on postoperative gastrointestinal paralysis, PONV and pain after abdominal surgery. *Cochrane Database of Systematic Reviews*. Issue 3, 2001.
20. Steinbrook RA. Epidural anesthesia and gastro-intestinal motility. *Anesth Analg* 1998;86:837-44.
21. Neudecker LF, Schwenk W, Junghans T, Pietsch S, Bohm B, Muller JM. Randomized controlled trial to examine the influence of thoracic epidural analgesia on postoperative ileus after laparoscopic sigmoid resection. *Br.J.Surg* 1999;86:1292-5.
22. Wattwill M, Thoren T, Hennerdal S, Garvill GE. Epidural analgesia with bupivacaine reduces postoperative paralytic ileus after hysterectomy. *Anesth Analg* 1989;68:353-8.
23. Scheinin B, Asantila R, Orko R, The effect of bupivacaine and morphine on pain and bowel function after colonic surgery. *Acta Anaesthesiol Scand* 1987;31:161-4.
24. Riwar A, Schar B, Grotzinger U Effect of continuous postoperative analgesia with peridural bupivacaine on intestinal motility following colorectal resection. *Helv Chir Acta* 1992;58:729-33.
25. Stevens RA, Mikat- Stevens M, Flanigan R, Water WB et al. Does the choice of anesthetic technique affect the recovery of bowel function after radical prostatectomy? *Urology* 1998;52:213-8.
26. Holte K, Kehlet H. Postoperative ileus- a preventable event? *Br J Surg*;2000; 87:1480-93.
27. Kehlet H. Acute pain control and accelerated postoperative surgical recovery. *Surg Clin N Am*. 1999;79:431-5.
28. Holte K, Kehlet H. Epidural anesthesia and the risk of anastomotic leakage. *Reg Anesth Pain Med* 2001;26:111-7.
29. Ballantyne JC, Carr DB, de Ferranti S, et al The Comparative effects of postoperative analgesic therapies on pulmonary outcome: cumulative meta-analyses of randomised ,controlled trials. *Anesth Analg* 1998;86:598-612.
30. Rodgers A, Walker N, Schug SA et al. Reduction of postoperative mortality and morbidity with epidural or spinal anaesthesia. Results from overview of randomised trials. *Br Med J* 2000; 321:1493-7.
31. Dunwoody JM, Reichert CC, Brown KL. Compartment syndrome associated with bupivacaine and fentanyl epidural analgesia in pediatric orthopaedics. *J Pediat Orthoped*. 1997;17:285-8.
32. Uppington J. Epidural analgesia and previous Caesarean section. *Anaesth*. 1982;38:336-41.
33. Christopherson R, Beattie C, Frank SM et al Perioperative morbidity in patients randomized to epidural or general anaesthesia for lower extremity vascular surgery. *Anesthesiol* 1993;70:422-34.
34. Berridge DC, Kessel D, Rebertson I. Surgery versus thrombolysis for acute limb ischaemia: initial management. *Cochrane database of Systemic Reviews* (4) 2000.
35. Eagle KA, Brundage BH, Chaitman BR, et al Guidelines for perioperative cardiovascular evaluation for non cardiac surgery. Report of the American College of Cardiology/ American Heart Association Task Force on Practice Guidelines. *Circulation* 1996;93:1278-317.
36. Allen RB Ischaemic heart Disease and Myocardial Infarction, in Duke J, ed. *Anesthesia Secrets*. Hanley & Belfus, Philadelphia 2000.
37. Rolf N, Van Aiken H, Physiology and pathophysiology of thoracic sympathetic blockade. *Thoracic Epidural Analgesia. Bailliere's Clin J Anesthesiol*.1999: 13:1-7
38. Meissner A, Rolf N, Van Aken H. Thoracic epidural anesthesia and the patient with heart disease: benefits, risks and controversies. *Anesth Analg* 1997; 85: 517-28.
39. Blomberg SG, Long term home self treatment with high thoracic epidural anaesthesia in patients with severe coronary artery disease. *Anesth Analg* 1994;79:413-41
40. Gramling-Babb P, Miller MJ, Reeves ST, Roy RC, Zile MR. Treatment of medically and surgically refractory angina pectoris with high thoracic epidural analgesia: Initial clinical experience. *Am Heart J* 1997;133(3):648-55.
41. Garnett RL, Macintyre A, Lindsay P. et al. Perioperative ischaemia in aortic surgery: combined epidural /general anaesthesia and epidural analgesia vs general anaesthesia and IV analgesia. *Can J Anaesth*. 1996;43:8:769-77.
42. Ready LB, Ashburn M, Caplan RA et al. Practice guidelines for acute pain management in the perioperative setting. *Anesthesiol*;1995;82:1071-1081.
43. Gould TH, Crosby DL, Harmer M, Policy for controlling pain after surgery: effect of sequential changes in management. *Br Med J* 1992;305:1187-93.
44. Lewis HD, Davis JW, Archibald DG et al. Protective effects of aspirin against acute myocardial infarction and death in men with unstable angin. Results of a Veterans Administration Co-operation study. *NEJM* 1983;309:396-403
45. Cairns JA, Gent M, Singer J et al. Aspirin, silflinpyrazone, or both in unstable angina. Results of a Canadian multicentre trial. *NEJM* 1985;313:1369-75.
46. Cohn PF. Concomitant use of nitrates, calcium channel blockers and beta blockers for optimal anti-anginal therapy. *Clin Cardiol* 1994; 17:415-21.
47. The RISC group. Risk of myocardial infarction and death during treatment with low dose aspirin and intravenous heparin in men with unstable coronary artery disease. *Lancet* 1990;336:827-830.
48. Antman EM, Cohen M, Radley Det al. Assessment of the treatment effect of enoxaparin for unstable angina/ non Q wave myocardial infarction. TIMI IIB ESSENCE meta-analysis. *Circulation* 1999;100:1602-8.
49. Horlocker TT, Wedel DJ. Spinal and epidural blockade and perioperative low molecular weight heparin: smooth sailing on the Titanic. *Anesth Analg* 1998; 86 115-36.
50. Tryba M, Epidural regional anesthesia and low molecular weight heparin: Pro. *Anesthesiol Intensivmed Notfallmed Schmerzther* 1993; 28: 179-81
51. Schreoder Dr Statistics: detecting a rare adverse drug reaction using spontaneous reports. *Reg Anesth Pain Med* 1998;23:183-9.

52. Horlocker TT, Wedel DJ, Schroeder DR, et al Preoperative antiplatelet therapy does not increase the risk of spinal haematoma associated with regional anaesthesia. *Anesth Analg* 1995;80:303-9.
53. Anonymous, CLASP: a randomised trial of low dose aspirin for the prevention and treatment of pre-eclampsia among 9364 pregnant women. CLASP (Collaborative Low-dose Aspirin Study in Pregnancy) *Lancet* 1994;343:619-29.
54. Massonet-Castel S, Pelissier E, Bara L, et al. Partial reversal of low molecular weight heparin (PK 10169) anti-Xa activity by protamine sulphate: in vitro and in vivo study during cardiac surgery with extracorporeal circulation. *Haemostasis* 1986;16:139-46.
55. Van Ryn-McKenna J, Cai L, Ofosu FA et al. Neutralisation of enoxaparin induced bleeding by protamine sulphate. *Thromb Haemost* 1990; 63: 271-274
56. McGill N. Gout. *Med J Aust* 1997;166(1): 33-8
57. Budd K. The role of tramadol in acute pain management. *Intern J Acute Pain* 1999;4:189-196.
58. Rowbotham DJ, Alexander JJ, Arden CF et al. Guidelines for the use of NSAIDs in the perioperative period. The Royal College of Anaesthetists, London 1998.
59. McQuay H & Moore A (eds) An evidence based resource for pain relief. Oxford University Press 1998
60. Rostom A, Wells G, Tugwell P, Dube C, McGowan J Prevention of chronic NSAID induced upper Gastrointestinal toxicity. (Cochrane review) In: *The Cochrane Library, issue 3,2000*. Oxford.
61. Ready LB, Edwards W Teds, Management of Acute Pain: a practical guide, task force on acute pain, IASP, Seattle 1992.
62. Schug SA, Torrie JJ. Safety assessment of post-operative pain management by an acute pain service. *Pain* 1993;55:387-91.
63. Breivik H .Prolonged postoperative epidural anesthesia: how to make it work safely and effectively. *Acta Anesthesiologica Scandinavia* 1996;109 suppl. 173-4.

Faculty of Pain Medicine

ABN 82 055 042 852

PROFESSIONAL DOCUMENTS

P = Professional PS = Professional standards

- PM1 (2002) Guidelines for Trainees and Departments Seeking Faculty Approval of Posts for Training in Pain Medicine
- PM2 (2001) Requirements for Multidisciplinary Pain Centres Offering Training in Pain Medicine (under revision)
- PM3 (2002) Lumbar Epidural Administration of Corticosteroids
- PS3 (2003) Guidelines for the Management of Major Regional Analgesia
- PS40 (2000) Guidelines for the Relationship Between Fellows and the Healthcare Industry
- PS41 (2000) Guidelines on Acute Pain Management
- PS45 (2001) Statement on Patients' Rights to Pain Management
- PS48 (2003) Statement on Clinical Principles for Procedural Sedation
- PS49 (2003) Guidelines on the Health of Specialists and Trainees

COLLEGE PROFESSIONAL DOCUMENTS ADOPTED BY THE FACULTY:

- PS4 (2000) Recommendations for the Post-Anaesthesia Recovery Room (Adopted February 2001)
- PS7 (1998) The Pre-Anaesthesia Consultation (Adopted February 2001)
- PS8 (1998) The Assistant for the Anaesthetist (Adopted February 2001)
- PS9 (2001) Guidelines on Conscious Sedation for Diagnostic, Interventional Medical and Surgical Procedures (May 2002)
- PS10 (1999) The Handover of Responsibility During an Anaesthetic (Adopted February 2001)
- PS15 (2000) Recommendations for the Perioperative Care of Patients Selected for Day Care Surgery with amendment to the title to read Recommendations for the Perioperative Care of Patients Selected for Day Care Procedures (Adopted February 2001)
- PS18 (2000) Recommendations on Monitoring During Anaesthesia (Adopted February 2001)
- PS20 (2001) Recommendations for Responsibilities of the Anaesthetist in the Post-Operative Period (Adopted February 2001)
- PS31 (1997) Protocol for Checking the Anaesthetic Machine (Adopted February 2001)

Final Examination

May 2003

The written section of the examination was held in all capital cities in Australia, Newcastle, Townsville, Auckland, Christchurch, Hamilton, Hong Kong, Kuala Lumpur, Singapore and Wellington.

The viva examination was held at College Headquarters and the Alfred Hospital, Melbourne.

Names of successful candidates:

Mark James Adams	NZ	Christopher Hoy	VIC
Anne-Maree Aders	NSW	Anthony John Hull	VIC
Mark Jason Alter	VIC	Anthony Charles Keeble	VIC
Christopher Leo Ashley	NSW	Matthew Walters Kelso	NSW
Fraser Lucas Barry	VIC	Beth Michele Kienzle	QLD
James Lyndon Beit	QLD	Bradley Wayne La Ferlita	VIC
Brendon John Bigwood	NZ	Harold Hau Lok Lam	NSW
Martin Bohm	NSW	Bridget Antonia Langley	VIC
Ian Alexander Bridgland	NSW	Anna Kam Suen Lee	HK
Christie Michelle Cameron	VIC	Ha Yun Lee	HK
David Jeffrey Canty	VIC	Su-Li Lim	VIC
Kerryn Jennifer Carter	NZ	Andrew Frederic Lovegrove	WA
Brian Owen Chan	WA	Graham Ralph Lowry	SA
Wei-Ping Chan	VIC	Andrew Kenneth MacCormick	VIC
Cheung Wing Wai, Rochelle	HK	Todd William Maddock	SA
Barbara Chia	VIC	Shiva Malekzadeh	VIC
Kean Woon Chong	SA	Stephanie Louise McInnes	NSW
Elaine Marie Christiansen	WA	Joshua McNamara	SA
Tony Chung Hay Chu	NSW	Andrew Anthony Messmer	ACT
Daniel Vincent Collins	SA	Andrew Livingstone Miller	NZ
Ruth Elizabeth Coward	QLD	Rodney Greig Mitchell	SA
Colin Christopher Crowe	QLD	Kirsten Elissa Morgan	NSW
Bryce John Curran	NZ	Subita Marie Nobre	NZ
Amanda Jane Dawson	NZ	Stephen James Nutter	VIC
Rebecca Louise De Souza	NZ	Andrew James Olney	WA
James Mayfield Dennis	SA	Thomas William Painter	SA
Ben Jon Di Luca	VIC	Joanne Elizabeth Paver	NZ
Dean Dimovski	VIC	Veronica Margaret Payne	NSW
Tzung Ping Ding	VIC	James Francis Pedley	VIC
Ruth Irene Duncan	QLD	Kate Elizabeth Pennington	NSW
Simeon Michael Eaton	NZ	Frances Anne Perret	VIC
Kevin Charles Elliott	NZ	Johnny Petrovski	NSW
Caroline May Fahey	NSW	Nicole Louise Phillips	NSW
Ian Coulter Forsyth	VIC	Mathew Piercy	VIC
Salwan Fransi	VIC	John Poulos	NSW
Thomas Charles Edward Gale	VIC	Lachlan Michael Rathie	QLD
Michael Phillip Garrett	VIC	Michael Charles Reade	UK
Jonathan Paul Gibson	NSW	Kim Adele Rees	VIC
Jennifer Eleanor Greenwood	QLD	Christopher Allan Richardson	QLD
Simon James Hanning	NSW	Arthur Mervyn Rudman	NZ
Michael John Heytman	SA	Orysia Christine Sandry	TAS
John David Hollott	NSW	Stephanie Sarantopoulos	VIC
Gary Lewis Hopgood	NZ	Michael Owen Schultz	VIC
Adam James Howarth	QLD	Lloyd Hay Smail	NSW

Final Examination

Adam Allen Smeulders	NSW	Brian Joseph Warden	QLD
Peter James Squire	VIC	Justin William Watts	VIC
Heather Jane Stevens	SA	Diana Lynn Webb	NSW
Steven Paul Swanson	WA	Samuel John Willis	SA
Joel Ari Symons	VIC	Andrew Ching Wong	NZ
Nicole Lay Tin Tan	VIC	Wong Chau Ping, Joyce	HK
Priya Thalayasingam	WA	Jason Peter Woodrow	NSW
Benjamin Robert Turner	VIC	Chen Wu	QLD
Brent Randolph Waldron	NZ	Vivian Man-Ying Yuen	HK
Sue Ann Wan	NSW	Mark Steven Zammit	VIC

CECIL GRAY PRIZE

The Court of Examiners recommended that the Cecil Gray Prize for the half year ended 30th June, 2003 be awarded to Dr Nicole Louise Phillips of NSW.

MERIT LIST

In line with Council's decision to recognise candidates who have achieved excellence in their examination results, the following candidates were awarded a Merit Certificate for their performance at the May 2003 Final Examination.

Martin Bohm	NSW	Gary Lewis Hopgood	VIC
Kerryn Jennifer Carter	NZ	Anthony John Hull	VIC
Ian Coulter Forsyth	VIC	Anthony Charles Keeble	NZ

Admission to Fellowship by Examination

Cyrus Ian DESOUZA	NSW	Dugald Robert Gordon MCADAM	VIC
Thomas Maxwell DUFFY	WA	Alison Jane RYAN	SA
Paul Vincent GOONAN	NSW	Benjamin Robert TURNER	VIC

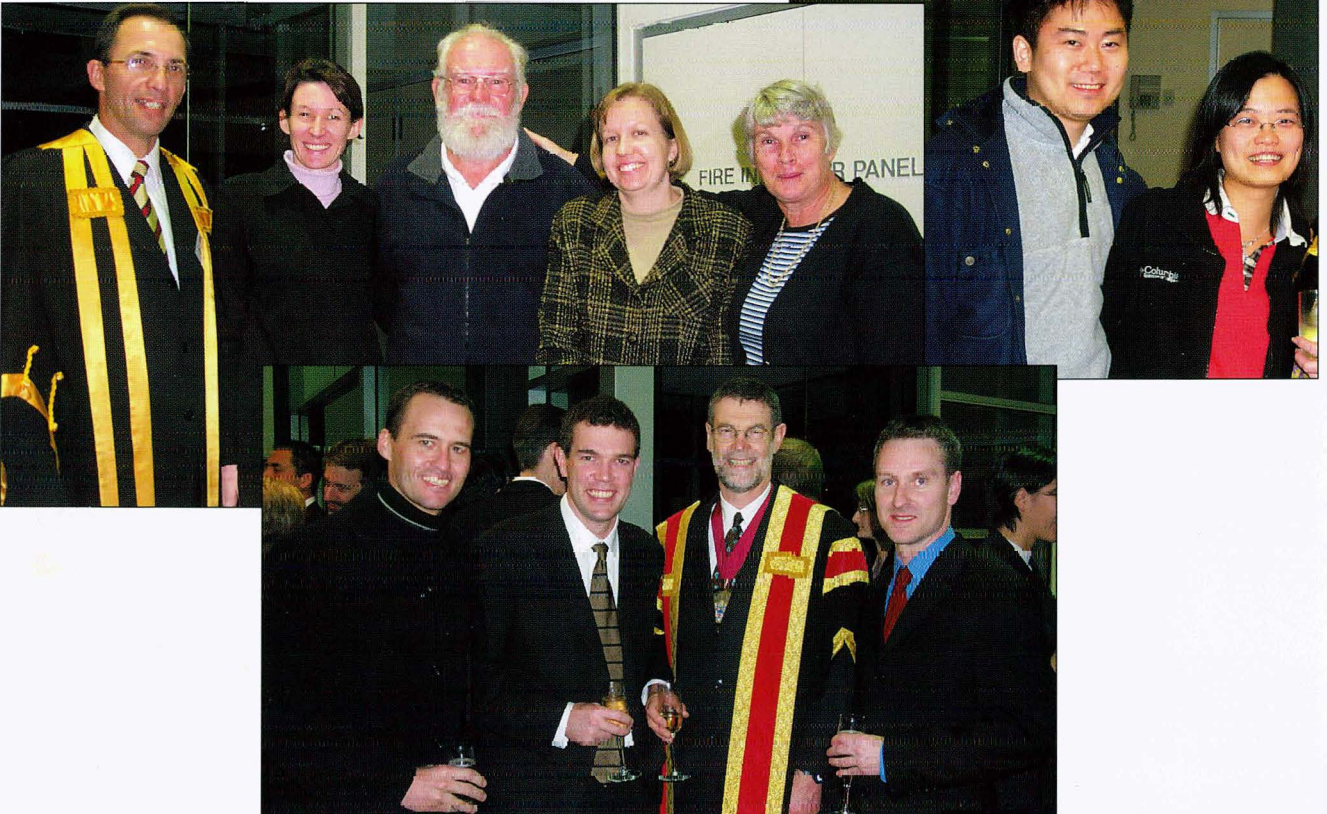
Admission to Fellowship via OTS Performance Assessment Process

Christopher Martin JELLIFFE	QLD	Guoming LIU	TAS
-----------------------------	-----	-------------	-----

**MAY 2003
FINAL EXAMINATION**



Members of the Court of Examiners



Victorian Combined ANZCA/ASA CME Meeting Presenters



Guests enjoying Dinner at ANZCA House following the meeting

ANZCA Council Citation Recipients



Dr Anton Neilson, Qld



Dr Alison Holloway, Qld



Dr John Board, Qld



Dr Patricia Mackay, Vic



Dr Kandasamy Vijayakumar, Vic

Annual Anaesthetic Registrars' Scientific Meeting



Dr Richard Willis, ANZCA President, presenting the Victorian Registrar's Prize to Dr Richard Bulach

Obituaries

Kevin John Byers (1915 – 2003)

FFARACS 1956, FANZCA 1992 – New South Wales

Kevin was the second of six children born to Arthur and Mabel Byers and was actually born in the Great Southern Hotel, George Street, Sydney. He was educated at St Aloysius College and proceeded to study Medicine at Sydney University where he graduated in 1941. Following residency at Lewisham Hospital, he joined the army during World War II and served in Australia and Bougainville. Whilst in the army, Kevin met Len Shea, later a prominent anaesthetist, who was to first stimulate his interest in anaesthesia.

After the war, Kevin entered general practice at Penrith and it was at this time that he met and married his wife Fil, at St Mary's, Concord in 1947. In 1948, he became a Medical Officer at Concord Hospital and over the next eight years he worked towards the Diploma in Anaesthesia from Sydney University, which he gained in 1954. In 1956, he was made Fellow of the Faculty of Anaesthetists, Royal Australasian College of Surgeons. Subsequently in 1992, he became a Fellow of the Australian and New Zealand College of Anaesthetists. In 1959, Kevin obtained post-graduate experience in Anaesthesia at Middlesex Hospital in London, and on his return was appointed the Head of Department of Anaesthesia at Concord Hospital, and subsequently a clinical Lecturer at the University Department of Anaesthesia. In 1966-67 Kevin was the Chairman of the NSW branch of the ASA.

In latter years of practice he initiated and ran the pre-admission clinic at Concord up until his formal retirement in 1985, after a 38 year association with the hospital. After retirement, his outstanding contributions were recognized with an appointment as Emeritus Consultant in Anaesthesia and the naming of the department library ("Kevin Byers Library").

As Head of Department at Concord, he oversaw its formative years. He was instrumental in recruiting high quality staff and he led by example. He was a committed physician who set high standards and expected the same in others. Kevin was universally regarded with affection by everyone he worked with. He was a modest man of unwavering principle, always courteous, cheerful and well-dressed. He had a fierce pride in the work he did and the institution in which he worked so hard for most of his life.

Members of his family were often told by Kevin that "life is a precious gift". It was clear to everyone that he had a great respect for every aspect of life; his own and that of others.

Heroes today are often found to be simply those who have made the most noise or the most money. How much more important and better it is to acclaim a hero because he was a man of honour and integrity – Kevin Byers was such a man.

Michael Amos and Brian Pollard

Robert Love Coulter (1915 – 2003)

FFARACS 1960 – New Zealand

Bob Coulter died in January 2003, aged 86, in Taupo where he and his wife Audrey had been retired for twenty years. Bob was a Scot who graduated MB ChB from the University of Glasgow in 1939. War service in India in the Royal Army Medical Corps followed and he gained his DA in London in 1947. From there he went to Iran as an anaesthetist in the Anglo-Iranian Oil Company's hospital in Abadan. He then emigrated to New Zealand in 1950 to become an anaesthetist to the Neurosurgical Unit in Dunedin Hospital. In 1955 he and his family shifted to Auckland where he became a full-time specialist to the Auckland Hospital Board. He was made MFARACS in 1954, FFARCS in 1955 and FFARACS in 1960. During this period Bob was a regular attendee, speaker and organiser at New Zealand conferences and he campaigned for an anaesthetic registrar training scheme in Auckland.

In 1960 he took six months study leave in the USA and UK. He became Director of Anaesthesia at Wellington Hospital for a short time and from there moved to Denver, Colorado for several years. On return to Auckland he became Senior Anaesthetist at the National Women's Hospital and was Senior at Green Lane Hospital from 1966 to 1971. During these years he was actively involved in the Primary Course, particularly in Pharmacology. He spent some months at the Medical School in the University of Adelaide, working in the Department of Human Physiology and Pharmacology to better fit him for this role. This was done at his own expense. He was later an examiner for the Primary Examination.

Bob had several publications in the anaesthetic literature and wrote reports of both New Zealand and overseas meetings. Here, his dry humour and facility with words came to the fore. This was no doubt influenced by his love of P G Wodehouse's works and we believe he had the most complete collection of the author's books in New Zealand.

In the 1970's, Bob ventured into part-time private anaesthetic practice and gave up his public hospital appointment in 1981. That occasion was marked by an Auckland conference on "Analgesics and Sedatives" in appreciation of his many years' service, particularly with regard to registrar training.

Bob's first marriage broke up many years ago but in 1971 he married Audrey Stevenson and they had thirty-one happy years together. In their retirement in Taupo they enjoyed their golf, gardening, reading, music and entertaining old friends. We extend our sympathy to Audrey, and Bob's two daughters.

Jack Watt and Basil Hutchinson

Trevor Talbot (Peter) Currie (1924 – 2003)

FFARACS 1956, FANZCA 1992 – Victoria

Dr Trevor Talbot (Peter) Currie was born in 1924, educated at Scotch College, Melbourne and completed his medical degree at the University of Melbourne. His adventurous personality was evident in his student years when he was a fearsome opponent across the poker table and played the stock market. These activities preceded his later urges to visit very faraway and exotic places.

In 1950 he and his wife, Dr Philippa Carter, sought an experience of life in London. Perhaps Peter called on his dental anaesthetic "training" at Launceston Hospital to obtain house officer and later registrar appointments in anaesthesia at the Westminster Hospital. Success there led to his appointment as senior registrar at the Brompton Hospital where he gained his expertise in the growing subspecialty of thoracic anaesthesia.

Academically, in 1953 he gained the DA (RCS&P.) and was subsequently awarded FFARCS in 1954, FFARACS in 1956 and FANZCA in 1992. Peter had close associations with the Faculty of Anaesthetists, Royal Australasian College of Surgeons, being an examiner and subsequently Chairman, Court of Examiners in the years 1961-1972. He was a member of the Victorian State Committee for 13 years, Chairman for 2 years and a member of the Board of Faculty from 1968-1972.

In June 1955 he returned to Melbourne from London and commenced his long association with the Royal Melbourne Hospital. His first appointment was as Thoracic Specialist Anaesthetist, 1955-1967, after which he became a Senior Medical Staff Sessional Anaesthetist, 1965-1989. He came to have a very significant impact on the anaesthetic policies at the Royal Melbourne Hospital where his views were widely sought and respected. In the earlier years he was instrumental in the expansion of thoracic anaesthesia and post-operative care as well as in the initial development of cardiac surgery, first a joint venture between St Vincent's and the Royal Melbourne Hospitals and later as an independent unit. As a teacher and mentor he was in great demand and all his clinical sessions were consistently highly attractive to trainees.

Peter Currie was much more than a skilled practitioner and policy maker. He pursued research in anaesthesia when few were seeking to broaden horizons in that specialty and his research successes twice gained him the Gilbert Brown Prize awarded by the Faculty of Anaesthetists, in 1965 and 1968. His particular professional interests covered numerous topics, including respiratory dysfunction, anaphylaxis, hypothermia, the management of extracorporeal circulation, and the peri-operative investigation and management of myasthenia gravis in the setting of thymectomy. He developed a close association with the Clinical Research Unit of the Royal Melbourne Hospital from which emanated some quite original observations. These including electromyographic studies in myasthenia gravis pre and post-thymectomy, the capacity of certain anaesthetic drugs to elicit anaphylactic reactions (now a topic of world-wide attention) and a remarkable case study (published in Neurology) confirming that neurotransmission in multiple sclerosis was facilitated by corporeal cooling. For the latter study a bedridden patient was maintained at 34 degrees Celsius for some days during which she improved remarkably, only to slip back on resumption of normothermia. He was indeed the forerunner of today's "peri-operative physician". All this was at a time when anaesthetic research was in its infancy, and despite busy professional commitments he published a total of 17 research articles in peer reviewed journals. The latter included two on mountain sickness, based on perceptive observations during his high-altitude mountaineering.

Peter Currie's role in private practice in Melbourne was, as for his hospital practice, highly formative. He joined Dr Gordon Stanton, a senior honorary anaesthetist at the Royal Melbourne Hospital, in a private practice partnership which immediately flourished and expanded to become Associated Anaesthetists which is today a dynamic group comprising 16 specialists. In his early years of part-time private practice he was very highly esteemed and extensively employed as a thoracic anaesthetist: his competence with volatile anaesthetic agents was matched by his ability in managing the highly volatile thoracic surgeons of the time. One has vivid memories of that lanky figure burdened by all the necessary

equipment required for the safe delivery of prolonged anaesthesia: anaesthetic machine and drugs, spare oxygen and nitrous cylinders and cans of soda lime, all of which were then provided by the anaesthetist and transported manually from one private hospital to the next. It must surely have given Peter great fulfillment to have become so deeply involved in the establishment of contemporary anaesthetic services and the furnishing of modern equipment at both the Epworth and Freemasons Hospital, which in fact set a benchmark standard for the subsequent upgrading of facilities at all private hospitals in Melbourne.

In later years, as private thoracic surgery diminished, Peter still continued his valued practice in anaesthesia, particularly for orthopaedic, general, urological and ENT surgery and he enjoyed the confidence and appreciation of Melbourne's leading surgeons. One of his little appreciated contributions was to help dispel yester year's "second fiddle" status of the anaesthetist vis-a-vis the surgeon. I was often called on as a locum for Peter during his (not infrequent) travels, with the sense of being regarded more as the "sorcerer's apprentice".

Peter Currie led a full and rounded life. Despite his growing professional responsibilities he devoted himself to the rearing of his family, and developed an enthusiasm for jazz music and operatic works, a knowledge of fine wine and was even recognised to be a passable magician. However his enduring interest was in high altitude adventure and travel to places "off the beaten track", including exploration of some of the most isolated regions of the world. Over 20 years his expeditions took him many times to Nepal and the mountains of the Himalayas, to the European Alps, the highlands as well as the souks of Morocco, the Andes and Antarctica and typically to remote areas of Australia. Further adventures were planned but sadly a prolonged and debilitating illness overtook him only weeks after he retired from practice in 1991. He is survived by his trekking companion and devoted wife, Philippa and by two sons and a daughter, all successful medical graduates of whom Peter was extremely proud. His family, friends and colleagues gathered in Kew on what would have been Peter's 79th birthday for a valedictory celebration of a life into which was packed more than one lifetime, a professional purpose that subsumed many purposes, and a wanderlust that visualised almost no limits or boundaries.

Patricia Mackay



Dean's Message

Neil Matthews

As mentioned in my previous Dean's messages, manpower and workforce issues are of major concern. There will be a shortage of medical students at least for the next ten years and there is a reliance on overseas graduates to fill training positions. There will be international, national, and inter specialty competition for both these groups. Encouraging women in our workforce is a related issue, and we need to ensure flexibility in training programs and facilitate interrupted and part time training. Rural intensive care issues have not been addressed and it is important for the Board to support our Rural Focus Group. With these problems in mind, the Joint Faculty will be joining with ANZICS to form a Workforce Working Party to collaboratively address these problems, especially with regard to recruitment and retention. The outcomes are important.

The Board has finalised a number of new initiatives. Negotiations with ANZCA Council have been finalised with regard to financial separation. Funds are now separately identified and quarantined, with strategies being developed for management of funds. An agreement on rental and use of ANZCA facilities and resources has been reached. The structure of the new training program has been finalised with new regulations incorporating the necessary changes and the former Administrative Instructions – an enormous workload, especially for our Executive Officer. The Policy Document on "Minimum Standards for Intensive Care Units" has been promulgated after extensive feedback. Guidelines for part time training will be relaxed, and processes will be enacted to create Trainee involvement in the new Education Committee. Our association with the Australasian Academy of Critical Care Medicine will be finalised by the end of the year.

Following a survey of accredited units, it has been agreed to introduce a mandatory requirement for trainees to spend a minimum of six months in a senior registrar role as part of advanced training. This will be introduced for all trainees commencing training from 1st December 2004. Recently the Board developed guidelines for accreditation of core training undertaken overseas. At this meeting the Board agreed that for 'standing' accreditation, Units must meet the requirements as for other units and will be subject to an inspection. However the Censor may approve training in overseas units for limited periods of time for individual trainees without a site visit.

It has been a busy year! I look forward to seeing you at the ANZICS ASM in Cairns.

Cheers,

Neil Matthews
Dean



Professor Geoffrey Barker

Life Time Achievement Award

The World Federation of Pediatric Intensive and Critical Care Societies

Professor Geoffrey Barker

The 4th World Congress of Pediatric Intensive Care was recently held in Boston from Sunday June 8th to Thursday June 12th 2003. Over 2200 physicians and nurses attended the Congress from 78 countries.

During the Opening Ceremony on Sunday, 8 June Professor Geoffrey Barker was presented with The World Federation of Pediatric Intensive and Critical Care Societies Life Time Achievement Award for his ongoing contribution to Pediatric Critical Care Medicine worldwide. Professor Barker is the first such recipient of this prestigious award.

Professor Barker was Chief of Critical Care Medicine at The Hospital for Sick Children from 1981 until 2001 and the founding President of the World Federation of Pediatric Intensive and Critical Medicine (WFPICCS) from 1997 to 2003.

A special guest of the Congress, Mr Jordan Gold, a 26-year-old Toronto man who received life saving care by Professor Barker as an infant, presented the award to Professor Barker on behalf of WFPICCS.

Senior Registrar Training

At its recent meeting, the Board resolved that a period of training in a 'Senior Registrar' (SR) capacity become a compulsory component of training toward Fellowship of the JFICM. This requirement will be incorporated into the Regulations for the new training program and will apply to trainees commencing training from 1st December 2004. The minimum period of tenure will be six months although 12 months SR experience remains the recommended duration. This resolution evolved from the recent survey of Directors of ICUs accredited for training. Responses were received from a total of 54 centers representing 64 ICUs. The level of support for a compulsory period of SR training was 82%. Thirty-two centers (59% of respondents) currently have an SR position. The role of SR may be undertaken in Units accredited as either C12 or C24 and does not have to be part of the continuous year of advanced training.

Based largely on the survey, the Board resolved that the SR position be defined by the following characteristics:

- Trainee seniority at the level of completion of specialist training (FJFICM, FANZCA, FRACP or equivalent) or of a reasonable expectation of completion within a year of undertaking the SR post.
- Requirement for a lesser level of supervision than junior trainees with greater clinical autonomy and responsibility.
- Rostering which is independent of both junior medical officers and specialists and which includes a specific on-call component.
- Specific responsibility for supervision and training of more junior medical officers.
- Specific involvement in research and administration.

In the first instance, self-reporting of compliance with the SR definition (via the ITA process) will be sufficient. In the future, designation will become part of the hospital accreditation process and will be supervised by the Hospital Accreditation Committee.

R.F. Raper

Items of Interest

FROM THE JUNE 2003 BOARD MEETING

EDUCATION AND TRAINING

Education Committee

Terms of Reference for a new Education Committee have been approved, following on from recommendations made in a report by the Australian Medical Council for accreditation of the JFICM program. Membership will include representation of trainees and it is proposed for regions to nominate a trainee representative, one of whom will be elected to represent them on the Committee. The Training Committee will be a sub-committee of this committee and will review individual training programs, as well as adjudicate on formal projects.

Senior Registrar Position

Following a survey of accredited units, the Board resolved to introduce a mandatory requirement for trainees to spend a minimum of six months as a senior registrar as part of training. This will be introduced for all trainees commencing training from 1st December 2004. A separate article appears elsewhere in this section of the Bulletin.

New Training Program

It was agreed that trainees commencing training under the new program will be required to have mandatory in-training assessment during their advanced training. The Support Kits for Supervisors will be updated and a Trainee Support Kit developed. A definition of interrupted training will be incorporated into the revised Regulations. The Administrative Instructions have been incorporated into the new Regulations, which will be promulgated once ratified by ANZCA and RACP Councils.

Regional Training Courses

The Board considered its involvement in training courses organized by individual Fellows. It was agreed that the Joint Faculty should support these initiatives where possible.

Format of Paediatric Intensive Care Examination

The Board resolved that as from 2004 the format of the Paediatric Intensive Care Fellowship Examination will be upgraded in line with the changes made to the General exam, namely structured vivas and investigations.

PROFESSIONAL

Policy Documents

The Board reviewed and approved IC-1 "Minimum Standards for Intensive Care Units" (printed elsewhere in the Bulletin).

IC-3 "Guidelines for Intensive Care Units Seeking Accreditation for Training in Intensive Care Medicine" is currently under further review. The Board resolved in principle, that the S3 classification for accreditation, being a three month rotation to specialised services within a core year at a parent hospital, should be withdrawn. Under the new training program, trainees will be able to apply for individual approval of a program which could incorporate a rotation to gain specific experience.

Workforce

Whilst trainee numbers have grown significantly, the number of full time intensive care practitioners in Australia and New Zealand entering the workforce remains low. Greater focus on recruitment of trainees is planned and a number of mechanisms were discussed to raise the profile of intensive care medicine.

Review of OTS Policy

The Board revised its policy relating to assessment of Overseas Trained Specialists.

INTERNAL AFFAIRS

Honours and Appointments

The Board congratulated the following Fellows on their recent honours:

T.E. Oh, WA – Fellowship of the College of Anaesthetists, Colleges of Medicine of South Africa

M.M. Fisher, NSW – Order of Australia, Officer in the General Division

W.M. Griggs, SA – Order of Australia, Member in the General Division

Representation of Fellows the ACT

After consultation with Fellows in the ACT region, it was agreed that Dr John Gowardman will continue to act as the ACT representative via the New South Wales Regional Committee.

Finance

Following negotiations with ANZCA, a strategy for management of JFICM funds has been agreed and is outlined in a report from the Treasurer published in this edition of the Bulletin.

Appointment of Office-Bearers

The AGM was held on Thursday 19th June, at which the Dean's Report to Fellows was received. This is published elsewhere in this section. The Board, at its meeting the next day, elected the following office bearers and appointments:

Elected Members:

N.T. Matthews Dean
J.H. Havill Vice-Dean and Education Officer
R.P. Lee Censor, Chairman, OTS Committee
P.V. van Heerden Treasurer, Assistant Censor
R.F. Raper Co-ordinator of Advanced Training
 and Chairman, Hospital Accreditation
 Group
J. Gillis MOPS Officer
J. Myburgh ASM Officer, Assistant Education
 Officer
F.H. Hawker

Co-opted Members:

R.J. Willis President, ANZCA
N. Thomson President, Adult Medicine Division, RACP

Co-opted Representatives:

P.T. Morley Chairman, Fellowship Examination
 Committee
R.L.S. Pascoe Representative, Queensland, and
 Communications Officer
A.J. Bell Representative, Tasmania and Rural
 Focus Officer

G.F. Bishop and P.D. Thomas have resigned from the Board and a call for nominations for these vacancies will be advertised in early 2004.

Joint Faculty of Intensive Care Medicine Board 2003 – 2004



Rear: C.Cunningham-Browne (Executive Officer), P.T. Morley, A.J. Bell, R.L.S. Pascoe, P.V. van Heerden, J.A. Myburgh, G.F. Bishop, J.D. Santamaria.

Front: R.F. Raper, F.H. Hawker, J.H. Havill (Vice-Dean), N.T. Matthews (Dean), R.P. Lee, P.D. Thomas.

(Absent: R.J. Willis (President ANZCA), N. Thomson (RACP), J. Gillis.

New Fellows' Conference

PORT ARTHUR, MAY 2003

The New Fellows Meeting was held at Port Arthur from the 31st April-2nd May 2003. The theme of the meeting was "Managing New Techniques and Equipment". Delegates were chosen from Australia and New Zealand. The meeting represented an ideal chance for New Fellows from all over Australia and New Zealand to get together in both a formal and informal setting. The meeting is planned to coincide with the Annual Scientific Meeting of the Australian and New Zealand College of Anaesthetists and was organised by Dr Michael Grubb of Tasmania. Talks were given by each delegate, followed by discussions.

Those present included:

Intensive Care

Dr Gerry O'Callaghan, SA Dr Andrew McKee, NZ
Dr Peter Garrett, QLD Dr Julian Hunt-Smith, VIC
Dr John Lambert, NSW

Anaesthesia

Dr Philip Blum, NT Dr Steve Myles, WA
Dr Sesto Cairo, VIC Dr Brendan Orr, NSW
Dr Anne Jaumees, NSW Dr Karen Pedersen, NZ
Dr Alexander Khrapov, NZ Dr Adam Tucker, NSW
Dr Mark Lai, QLD Dr Michael Veltman, WA
Dr Simon Morphet, TAS

The presentations given by the intensive care delegates were as follows:

1. Peter Garrett discussed that "Activated Protein C should be freely available to all critically ill sepsis patients". It was felt that Activated Protein C showed promise as a novel therapy but should not be seen as a substitute for current standard care. Therefore, intensivists should have this drug available in their pharmacological arsenal to be given to the appropriate patient.
2. John Lambert presented "Admitting patients with terminal illnesses to the ICU for acute palliative care is an appropriate use of the ICU". A specific interest may be developed within an institution where a formal palliative care service is lacking. Resource allocation issues may prevent other institutions from involvement however interest was indicated by most delegates. Variable interpretations of the topic arose with the dying "intensive care" patient also being considered a palliative care issue.
3. "Your 12 bed ICU has an outbreak of acinetobacter infection with four attributable deaths. Describe your management plan." Andrew McKee discussed the standard infection control practices necessary in dealing with such a problem.

4. Gerry O'Callaghan evaluated that "ARDSnet ventilation should be mandatory in Australasian Intensive Care Units". Significant study concerns such as ventilator PEEP protocols and other study design issues made it impossible for such a mandate to be given.

5. Your 10 bed ICU needs replacement ventilators. Describe the selection and implementation process. Julian Hunt-Smith presented an approach for major equipment purchases.

By design, the meeting allowed delegates to discuss issues related to the presentations as well as ones of particular interest to New Fellows. The make-up of the New Fellows Conference was felt to have benefited greatly by the presence of Intensive Care and Anaesthesia delegates. In the future other specialties could be invited to broaden the range of opinions presented.

Training issues were keenly debated, particularly those pertaining to trainee representation in the College's activities. A Trainees' Committee, with the chairperson to sit on JFICM Education Committee was felt to be of great importance. There were even calls for representation at board level. Selection and procedural issues were also discussed.

The adoption of modular training was viewed with scepticism, with the inevitable increase in financial costs to trainees being as yet not demonstrated to outweigh the perceived benefits. The role of the internet in education was seen as central to both teaching and communication within the college.

Feedback with trainees was an area considered to be vital. The system would be improved by the establishment of a Trainees' Committee. In addition, a trainee's assessment of their training post in terms of clinical experience, infrastructure and teaching submitted at the completion of each six month training block, would also aid the training process.

Several rural based practitioners were present, and hence rural training and representation issues within the College were covered. Key areas discussed were the recruitment and retention of rural intensivists and the possible structure of a rural-based training program with relevant rotations to metropolitan centres for specialty experience. Access to MOPS programs, journal clubs, case discussions, clinical audit and practice review were acknowledged to be far more difficult to achieve in a rural based as opposed to a metropolitan practice.

The specialty of intensive care medicine is undergoing major changes in terms of structure and training and it was good being able to mix with intensivists at a similar stage in their careers from a diverse background. All those who attended seemed to really enjoy the meeting and it should be highly recommended to all new Fellows of the College.

J. Hunt-Smith

Intensive Care Training Update

With advertisements for training positions for next year coming up, it is timely to inform Supervisors and Trainees of the progress in their area.

It is proposed that there will be Trainee Representation on the Education Committee of the Joint Faculty. The Board have agreed this will be an appropriate mechanism for incorporating the views of trainees as recommended in the report of the AMC following its accreditation of the Joint Faculty's training and education program last year.

The Regulations pertaining to the new training program are being finalised and will apply to all trainees commencing training from 1st December 2003. Those considering commencing training should contact the Faculty office for up to date information on the program and discuss their program with the Supervisor of Training.

In summary the new program will be restructured to consist of:

- Satisfactory completion of the ANZCA Primary Examination or the RACP Written/Clinical Examinations, or other approved examination
- A six year training program comprising three years of basic training and three years of advanced training, which must include:
 - 24 months of core intensive care training (as Advanced Training)
 - 12 months of clinical anaesthesia (which may be undertaken as basic training)
 - 12 months of clinical internal medicine (which may be undertaken as basic training)
 - 12 months of elective training (which must be undertaken as Advanced Training)
- Satisfactory completion of the Fellowship Examination
- Satisfactory completion of a Formal Project
- Satisfactory in-training assessment

It is planned that the Fellowship Examination in Paediatric Intensive Care will be reviewed to become more structured as with the General Fellowship Examination.

There will be a requirement for the position of Senior Registrar(s) in the Training Program so that all Trainees are able to have senior level experience and practice management development. It is envisioned that these programs will be a minimum of six and preferably twelve months duration. This will be compulsory under the new program, for trainees commencing training from 1st December 2004.

On a different note it is important to highlight the New Fellows Conference which is held each year in the week preceding the Joint Faculty/College Meeting. It is available to Fellows who are of 6 years Fellowship or less and has a number of preset topics with relevance to Anaesthesia and Intensive Care discussed and reviewed. This conference is educational, entertaining and valuable in encouraging continued Joint Faculty involvement. The costs of this venture are borne by the Joint Faculty. Nomination is via the Regional Committee in your region. It is expected that the New Fellow selected will report to and be co-opted to the Regional Committee where possible for the year.

The medical ADAPT course is strongly recommended for Trainees and Fellows alike. This is a reasoned course in Donor/ Transplantation situations and touches on fields which are often passed over in Education. Similar emphasis is placed on the EMST course for practitioners.

Ranald L.S. PASCOE
Communications Officer

Report from the Dean to Fellows of the Joint Faculty of Intensive Care Medicine

AS AT 19TH JUNE 2003

I have the pleasure to present my report on behalf of the Board of the Joint Faculty for the year 2002/2003.

EDUCATION AND TRAINING

This year the result of many long term training initiatives will come to fruition, under the capable guidance of our Education Officer, A/Professor Jack Havill. Of most importance is the completion of the development of the new training program, which will commence for trainees commencing training at the beginning of the 2004 Hospital year. This will bring increased flexibility and interaction with other programs to reflect the establishment of the Joint Faculty, while still maintaining the core components of the present program. The review is the result of several years work by the Board and regions, and will bring our program into line with the programs of other disciplines relevant to intensive care.

Other important progress has been made:

- The role of Supervisor of Training was given a higher profile. A Training Kit including policies and educational tools was developed and circulated, covering issues such as duties of Supervisors, the training program, exams, ITA, mentoring, trainees with difficulties and education resources and modules. A module regarding Trainees experiencing difficulty was produced. This is an excellent educational resource.
- Following recommendations from the AMC, an Education Committee has been established, which will incorporate Trainee representation.
- The role of a mandatory Senior Registrar position in training is under consideration, following the conduct of a survey of units.
- A new system of documenting training was established, requiring trainees to apply for prospective approval of each year of training. This has provided more accurate data for workforce purposes, enabling identification and therefore improved assessment of trainees during the year. A 'goals' form was devised for inclusion in training portfolios to be maintained by trainees.
- The Manual on Training was revised and promulgated.
- The requirements for the Formal Project were reviewed and amended.

The Joint Faculty acknowledges the assistance of the ANZCA Director of Education, Dr Russell Jones, in developing some of these initiatives.

Trainees

The following statistics are reported concerning Joint Faculty trainees as at June 2003:

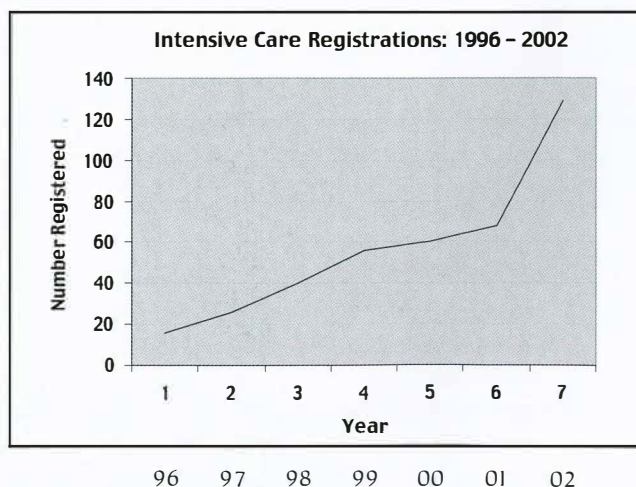
Total Intensive Care Trainees 365 (+ 32 not active)

Male	284		
Female	81		
NSW	123	TAS	5
VIC	70	NT	2
ACT	10	NZ	30
QLD	56	HK	12
SA	23	UK	6
WA	20	Other	2
		Unknown	6

Training via JFICM only	148*
Via JFICM and ANZCA	129
Via JFICM and RACP	43
Via JFICM and ACEM	30
Via JFICM, ANZCA & ACEM	8
Undertaking PIC	10

*includes trainees who have successfully completed training in another specialty (ie. FANZCA, FRACP)

There continues to be a growth rate in the number of trainees registering for intensive care training, being 28% since June 2002, following an increase of 24% in the previous year.



EXAMINATIONS

The Fellowship Examination Committee under the Chair of Dr Peter Morley has considered a number of key issues, including recruitment of Examiners, and ongoing review and assessment of the Fellowship Examination.

Assessors are now involved at each examination to give a global view and provide independent input into the examination process. This has been a very useful exercise.

August/September 2002 Fellowship Examination

The written section was held in Adelaide, Brisbane, Hong Kong, Melbourne, Newcastle and Sydney. The Clinical Section was held at the Alfred Hospital Intensive Care Unit and the OSCE and Viva sections were held at ANZCA House. 15 candidates sat of which twelve were successful.

Successful candidates

Dr S Baker
Dr S Bhonagiri
Dr R Brockett
Dr G Comadira
Dr A Cross
Dr K Ellem
Dr I Johnston
Dr N Kavanagh
Dr N Orford
Dr L Padayachee
Dr J Shen
Dr M Ziegenfuss

April/May 2003 Fellowship Examination

The written section of the Examination was held in Adelaide, Brisbane, Melbourne, Perth, Sydney and Townsville. The Oral Sections of the Examination were held at the Liverpool Hospital. Eight of the twelve candidates were approved.

Successful candidates

Dr E J Bennett
Dr J Cohen
Dr K G Deshpande
Dr D R Ghelani
Dr P J Lane
Dr G Maclaren
Dr C Mashonganyika
Dr E L Trent

The G.A. (Don) Harrison Medal

The G.A. (Don) Harrison Medal for 2002 was awarded to Dr Neil Ronald Orford, of the Geelong Hospital in Victoria, and was presented at the ASM in Hobart in May this year.

Development of an Intensive Care Primary Examination

A sub-committee has been established to consider this issue. Types of assessment and the implications of a separate Primary Exam will be considered along with its place in the new training program and the overall direction of the Joint Faculty.

Eligibility to sit the Fellowship Examination/Primary Examination

The Board reviewed and expanded the requirements for eligibility to sit the Fellowship Examination, allowing trainees who have successfully completed the ACEM Primary Examination and the RACS Primary Examination to be exempt from the requirement to sit the ANZCA Primary Examination. This applies only to trainees in relation to the Intensive Care training program.

HOSPITAL ACCREDITATION

The Hospital Accreditation Committee, chaired by Dr Ray Raper, supervised the ongoing review of units accredited for training through site visits, as well as review of a number of policy matters.

Representatives of the Board and Regional Committees reviewed nine Intensive Care Units since June 2002. Currently accredited units comprise the following:

- 30 units accredited for the full 24 months of core intensive care training
- 18 units for 12 months of training
- 16 units for 6 months of training
- 6 units accredited for 3 months on secondment programs.

A survey of Units accredited for training was conducted to gather data on supervision and rostering within co-located Intensive Care Units. The results are currently being considered.

After much discussion at Board and within regions, the policy of accrediting training undertaken in units outside Australia, New Zealand and Hong Kong was approved. Formal processes now exist for either trainees to apply for approval of an individual training program in an overseas ICU, or for the Unit itself to apply to be accredited on a more permanent basis.

PROFESSIONAL AFFAIRS

Great progress has been made with regard to liaison. A very fruitful affiliation continues with ANZICS, and in particular I welcome the President of ANZICS, John Santamaria to the Board. We all acknowledge the importance of both organisations and their roles, and the need to work collaboratively to enhance and strengthen our specialty. I am particularly excited by discussions with Dr L.I.G. Worthley, which have led to a working group being formed to establish links with the Australasian Academy of Critical Care Medicine. This will be an extremely important development. The Joint Faculty reconfirmed its involvement with the Committee for Presidents of Medical Colleges, a very important link between specialties and Government. Good representation continues with ANZCA, RACP, RACS and relevant government bodies.

AMC Accreditation

During 2002, the Joint Faculty was reviewed by the Australian Medical Council as part of the overall assessment of ANZCA. Considerable work was undertaken in preparing the submission and arrangements for the Accreditation Team to meet with Directors and Supervisors at accredited hospitals, and with members of the Board and trainees. The result was very pleasing, with accreditation of the training programs granted for six years.

A number of important recommendations were made, including establishment of an Education Committee, development of rural training programs, increased flexibility for assessment of overseas trained specialists and improved recruitment to intensive care as a specialty. All recommendations have been instituted or are being incorporated. Professor Garry Phillips, Director of Professional Affairs, ANZCA, contributed greatly to the preparation of the submission, and I acknowledge his tremendous help and guidance.

Assessment of Area of Need (AON) applicants and Overseas Trained Specialists (OTS)

This has been a growing area in terms of administration and work required by our Committees and the Board. Ten applications from OTS seeking assessment in Australia or New Zealand, and one application for AON have been processed. The OTS Committee has overseen interviews and assessments of applicants. My thanks go to Dr Felicity Hawker for chairing this Committee.

Policy Documents

The following policies were revised and promulgated in the past year:

- IC-6 *"The Role of Supervisors of Training in Intensive Care Medicine"*
- IC-9 *"Statement on the Ethical Practice of Intensive Care Medicine"*
- IC-10 *"Minimum Standards for Transport of Critically Ill Patients"*
- PS 39 *"Minimum Standards for Intrahospital Transport of Critically Ill Patients"*
- PS 48 *"Clinical Principles for Procedural Sedation"*

Policy Document IC-5 *"The Role of Regional Education Officers"* was withdrawn as this position was removed from the regional training infrastructure.

The following documents are under review with IC-1 to be promulgated shortly:

- IC-1 *"Minimum Standards for Intensive Care Units"*
- IC-3 *"Guidelines for Intensive Care Units Seeking Accreditation for Training in Intensive Care Medicine"*

CONTINUING EDUCATION

Following a survey of Fellows regarding the most appropriate format for the JFICM meeting, the Board resolved to maintain involvement in the ANZCA and the RACP Annual Meetings until at least 2005, and is exploring the possibility of an additional stand-alone JFICM ASM that year. Further discussions will also be held with ANZICS regarding potential ASM liaisons.

The ASM in Hobart in May this year was a great success, both from a scientific and social perspective. The program featured Professor Dennis Maki as the Joint Faculty's Foundation Visitor, who spoke on SARS, Bioterrorism, cross infection in ICU and sepsis beyond antibiotics.

On behalf of the Board I would like to express thanks to those Fellows involved in the intensive care component of the program, in particular Stuart Miller, Intensive Care Convenor and John Myburgh, Faculty ASM Officer.

Maintenance of Professional Standards

It is anticipated an electronic format for returns of participant data will be available for 2004.

At present the Faculty has 272 registered participants in its Maintenance of Professional Standards Program. 260 of these are Fellows.

FINANCE

There has been very pleasing progress toward the Joint Faculty's financial independence in the past year. Subscription income is now separately identified and quarantined and a healthy balance sheet has been achieved.

RESEARCH

The following intensive care related projects were supported by ANZCA for 2002:

Dr John Morgan, Qld *Optimal crystalloid strong ion difference for acute haemodilution to prevent dysoxia* \$28,000

A/Prof Bala Venkatesh, Qld *Critical tissue oxygenation and acidosis: Implications for dysoxia, and apoptosis in the critically ill* \$25,000

As part of consideration of its financial strategy, the Board resolved to continue contributing 10% of subscriptions to the ANZCA Foundation at the present time. A working party is currently addressing research directions, including relationships with the ANZICS Foundation, to ensure the Joint Faculty's funding of research is collaborative and cohesive.

FELLOWSHIP AFFAIRS

Honours and Appointments

During the past 12 months, a number of our Fellows have been honoured for their significant achievements:

Professor Garry Phillips, SA – Emeritus Professor, Flinders University of South Australia

Professor Barry Baker, NSW – Fellowship, Wood Library – Museum of Anaesthesiology

Professor Jamie Sleigh, NZ – Professor of Anaesthesia and Intensive Care, Waikato Clinical School, University of Auckland

Dr Simon Towler, WA – AMA Roll of Fellows

M.M. Fisher, NSW – AO, Officer in the General Division

W.M. Griggs, SA – AM, Member in the General Division

Admission to Fellowship

The following Fellows were admitted to Fellowship of the Joint Faculty of Intensive Care Medicine by examination:

B.A. Rodd Brockett	QLD
Troy Stuart Browne	NZ
Gordon Yuk Sang Choi	HK
Gregory Phillip Comadira	QLD
Katrina Louise Ellem	NSW
Francis Charles Michael (Carl) Fagan	Ireland
Jonathan Field	QLD
Peter Maxwell Garrett	QLD
Andrew Kent Hilton	VIC
Craig Tod Hourigan	NZ
Julian Hunt-Smith	VIC
Rodney Norman Juste	NSW
Niall Peter Kavanagh	Ireland
John Francis Lambert	NSW
Laven Padayachee	VIC
Robert Plant	Ireland
Alan Bruce Rouse	TAS
Benjamin Robert Turner	VIC
Kim Vidhani	UK
Pauline Whyte	SA
Marc Detlev Ziegenfuss	QLD

The following Fellows were admitted to Fellowship of the Joint Faculty of Intensive Care Medicine by election having met the criteria for Foundation Fellowship:

Andrew Edward Ajani	VIC
John Albertyn Botha	VIC
Derek Lai Ki Chu	NSW
Frances Brigid Colreavy	WA
Nicholas John Coroneos	NSW
John Jeffrey Flachs	NSW
Stuart Russell Green	QLD
David Langton	VIC
Peter Gordon Moore	USA
Catherine Rosarie Motherway	Ireland
John William Arnold Mulder	VIC
Konstantinos Nikolettos	NSW
James Patrick Dalton Keaney	ACT
Patrick Gerard O'Callaghan	SA
Keith Rees	VIC
Philip Haydn Sargent	QLD
Craig Stewart Walker	VIC
Donald Edward Stewart	NSW
Ross McLaren Wilson	NSW

The following Fellows were admitted to Fellowship by election in accordance with Regulation 5.3:

Peter John Stow	VIC
Michael Joseph Anthony Parr	NSW
Stephen Anthony Bernard	VIC

Honorary Fellowship

This year Honorary Fellowship was conferred on two Fellows having been deemed to have made a notable contribution to the science and practice of intensive care medicine.

Dr Gracie Siok Yan Ong, of the University of Malaya Medical Centre in Malaysia, on the basis of her teaching and training, her research and her overall contribution to critical care in Malaysia.

Dr Bernard George Clarke, PSM, will be known to many of you as one of the pioneers of intensive care in Victoria. Graduating as a respiratory physician, he made a very valuable contribution to intensive care teaching and training as Director of Intensive Care at the St Vincent's Hospital, and also with the RACP and the development of Critical Care Services in Victoria, and later the Medical Practitioners Board.

Conferment of these Fellowships occurred at the Annual Scientific Meeting in Hobart in May.

Total Fellows:	461
404 male	58 female

Geographical disposition:

VIC:	86	New Zealand:	51
NSW:	127	Hong Kong:	17
ACT:	7	Malaysia:	1
QLD:	57	United Kingdom:	17
SA:	35	Ireland:	9
WA:	31	Canada:	4
TAS:	8	United States:	7
NT:	1	Other:	3

Communication Initiatives

The establishment of an email list for Fellows and Trainees has enhanced communication and reporting to and amongst Fellows. Considerable time was also devoted to review of the Website which incorporated re-designing the format. This Report will be circulated by email and available on the Website.

INTERNAL AFFAIRS

Board Constitution

Following the election of the Board in June 2002, and the increase in numbers of Fellows resident in Tasmania, it was agreed that a representative from that region be co-opted to the Board and A/Professor A.J. Bell has joined the Board in this capacity. A change in ANZICS office-bearers resulted in Dr John Santamaria joining the Board as ANZICS President from October 2002.

Also in October, Dr Felicity Hawker stepped down as Dean and has remained on the Board in the role of Assistant Censor.

Review of Regulations

The Regulations were revised and approved in February 2003 to incorporate a number of issues:

- removal of the requirement for the Board to be constituted by eight FFICANZCA and two RACP Fellows. This now reads 'Ten Fellows of the Joint Faculty'.
- Removal of the requirement for a Regional Education Officer to be elected as part of the Regional Committee

- Broadening of the scope for eligibility to sit the Fellowship Examination, by incorporating the ACEM and RACS Primary examinations as appropriate prerequisites
- Revision of the procedure for election to Fellowship, to enable a more transparent and systematic process
- Detailing the Chairman of the Hospital Accreditation Committee as a formal appointment

Academic Dress

The Fellow's Gown been redesigned to more appropriately reflect the Joint Faculty. Fellows wishing to upgrade their existing gown should contact the Executive Officer to make the necessary arrangements.

Strategic Analysis and Future Directions

Finally, the June Board will be discussing the best way forward for the Joint Faculty. I welcome input from all Fellows regarding the future of our specialty.

In closing, I would like to thank Fellows for their continuing participation and involvement in the Joint Faculty. Much has been achieved through the goodwill of Fellows giving their time on internal and external committees, as examiners, hospital visitors, members of Appointments Committees, and organisers of national and regional meetings. Fellows also participate in courses as tutors, and fulfil their ongoing roles as teachers and trainers. The efforts of this commitment are hugely underestimated.

I also wish to highlight the assistance of the Councils and staff of both the ANZCA and RACP. Most Fellows would not appreciate that the resources available from these bodies have been freely extended to the Joint Faculty, and greatly enhance our ability to provide the highest level of professional training and assessment which can be proudly matched against any in the world.

My personal thanks also to the Joint Faculty staff Carol Cunningham-Browne, Andrew Coghill and Megan Freeth, for their continued help and assistance. They are the important interface between the Faculty and Fellows and Trainees.

I would also thank the Members of Regional Committees and the Board for their support and hard work, which ensures the excellence of our Training Program and the relevance of the standards we espouse. In particular I acknowledge immediate past Dean Dr Felicity Hawker, who was instrumental in the process of achieving a unified training program and the Joint Faculty that oversees it.

In closing, comments and feedback from both Fellows and Trainees are essential, and I encourage you all to be involved and proactive in forging our future.

N.T. MATTHEWS

Dean

Joint Faculty of Intensive Care Medicine

June 2003

Admission to Fellowship of the Joint Faculty of Intensive Care Medicine

The following have completed all requirements for admission to Fellowship by examination:

Gregory Phillip Comadira

QLD

Judith Shen

HK

Joint Faculty of Intensive Care Medicine

Australian and New Zealand College of Anaesthetists
and Royal Australasian College of Physicians

ABN 82 055 042 852

Review IC1 (2003)

MINIMUM STANDARDS FOR INTENSIVE CARE UNITS

This Policy Document outlines the minimum standards relating to work practice/caseload, staffing and operational requirements, design, equipment and monitoring for Level I, II, III and Paediatric Intensive Care Units. The Faculty Policy Document IC-13 (2002) – 'Recommendations on Standards for High Dependency Units Seeking Accreditation for Training in Intensive Care Medicine' outlines similar minimum standards for High Dependency Units.

Levels of Intensive Care Units

The level of intensive care available should support the delineated role of the particular hospital. The role of the ICU will vary, depending on staffing expertise, facilities and support services as well as the severity of illness and number of patients admitted.

1. Level III Intensive Care Unit

A Level III ICU is a tertiary referral unit for intensive care patients and should be capable of providing comprehensive critical care including complex multi-system life support for an indefinite period. Level III units should have a demonstrated commitment to academic education and research. All patients admitted to the unit must be referred for management to the attending intensive care specialist.

A Level III unit should have:

1.1 Work practice/caseload

- 1.1.1 At least six staffed and equipped beds to adequately discharge clinical, teaching and research commitments consistent with the functioning of an Intensive Care Unit in a tertiary referral centre.
- 1.1.2 Sufficient clinical workload and case-mix of patients to maintain a high level of clinical expertise and to provide adequate clinical exposure and education of staff, including Intensive Care trainees if relevant. This should normally be more than 300 mechanically ventilated patients per annum.

1.2 Staffing Requirements

- 1.2.1 A medical director who is a Fellow of the Joint Faculty of Intensive Care Medicine. The medical director must have a clinical practice predominantly in Intensive Care Medicine.
- 1.2.2 Sufficient supporting specialist(s) so that consultant support is always available to the medical staff in the unit. For training units classified as C12 or C24 (refer Policy Document IC-3 'Guidelines for Intensive Care Units seeking Accreditation for Training in Intensive Care Medicine') trainees must be exposed to at least two specialists who are Fellows of the Joint Faculty of Intensive Care Medicine. At least two specialists should have a minimum of 50% involvement in the unit. There should also be sufficient specialist staff to provide for reasonable working hours and leave of all types and to allow the duty specialist to be available exclusively to the unit at all times. The majority of attending specialists in the unit must be Fellows of the Joint Faculty of Intensive Care Medicine.
- 1.2.3 At least one of the specialists exclusively rostered to the unit at all times. During normal working hours this specialist must be predominantly present in the unit, and at all times be able to proceed immediately to it.
- 1.2.4 In addition to the attending specialist, at least one registered medical practitioner with an appropriate level of experience exclusively rostered and predominantly present in the unit at all times.
- 1.2.5 A minimum of 1:1 nursing for ventilated and other similarly critically ill patients, and nursing staff available to greater than 1:1 ratio for patients requiring complex management (eg. ventricular assist device).

- 1.2.6 A nurse in charge of the unit with a post registration qualification in intensive care or in the clinical specialty of the unit.
- 1.2.7 The majority of nursing staff with a post registration qualification in intensive care or in the specialty of the unit.
- 1.2.8 All nursing staff in the unit responsible for direct patient care being registered nurses.
- 1.2.9 At least one nurse educator.
- 1.2.10 Support staff as appropriate, eg. biomedical engineer, clerical and scientific staff.

1.3 Operational Requirements

- 1.3.1 Defined management, admission, discharge and referral policies.
- 1.3.2 Demonstrable and documented formal audit and review of its activities and outcomes with staff who have dedicated time to collect and manage data.
- 1.3.3 A documented orientation program for new staff.
- 1.3.4 Educational programs for medical staff, and a formal nursing education program.
- 1.3.5 An active research program, preferably with staff who have dedicated time to collect and manage data.
- 1.3.6 Suitable infection control and isolation procedures and facilities.
- 1.3.7 24 hour access to pharmacy, pathology, operating theatres and tertiary level imaging services, and appropriate access to physiotherapy and other allied health services when necessary.
- 1.3.8 Appropriate clerical and secretarial support.

1.4 Design

- 1.4.1 A self-contained area, with easy access to the emergency department, operating theatres and organ imaging.
- 1.4.2 An appropriate design, providing a suitable environment with adequate space for patient care delivery, storage, staff accommodation (including office space), education and research.

1.5 Equipment and Monitoring

Equipment and monitoring of appropriate type and quantity suitable for the function of the unit and appropriate as judged by contemporary standards.

1.6 Suitability for training

Only Level III units may apply for accreditation as C24 training units, but may also apply for C6 or C12 accreditation (refer Policy Document IC-3 'Guidelines for Intensive Care Units seeking accreditation for Training in Intensive Care Medicine').

2. Level II Intensive Care Unit

A Level II ICU should be capable of providing a high standard of general intensive care, including complex multi-system life support, which supports the hospital's delineated responsibilities. It should be capable of providing mechanical ventilation, renal replacement therapy and invasive cardiovascular monitoring for a period of at least several days. All patients admitted to the unit must be referred for management to the attending intensive care specialist.

A Level II unit should have:

2.1 Work practice/caseload

- 2.1.1 At least 4 staffed and equipped beds to adequately discharge clinical and teaching functions.
- 2.1.2 Sufficient clinical workload for maintaining clinical expertise and to provide adequate clinical exposure and education of intensive care staff, including trainees if relevant. This should normally be more than 200 mechanically ventilated patients per annum.

2.2 Staffing requirements

- 2.2.1 A medical director who is a Fellow of the Joint Faculty of Intensive Care Medicine. The medical director must have a clinical practice predominantly in intensive care medicine.
- 2.2.2 At least one other specialist who is a Fellow of the Joint Faculty of Intensive Care Medicine¹.
- 2.2.3 Sufficient specialist staff to provide reasonable working hours and leave of all types and to allow the duty specialist to be rostered and available exclusively to the unit.
- 2.2.4 In addition to the attending specialist, at least one registered medical practitioner with an appropriate level of experience exclusively rostered and predominantly present in the unit at all times.
- 2.2.5 A nursing staff: patient ratio of 1:1 for all critically ill patients.

¹The Joint Faculty of Intensive Care Medicine acknowledges that recruitment of Fellows of the Joint Faculty to rural units may be difficult and would support the designation Level II for a rural ICU if this were the only deficiency and if genuine attempts had been made at recruitment of suitable personnel.

- 2.2.6 A nurse in charge of the unit with a post registration qualification in intensive care or in the clinical specialty of the unit.
- 2.2.7 The majority of nursing staff with a post registration qualification in intensive care or in the specialty of the unit.
- 2.2.8 All nursing staff in the unit responsible for direct patient care being registered nurses.
- 2.2.9 Access to a nurse educator.
- 2.2.10 Support staff as appropriate, eg. biomedical engineer, clerical and scientific staff.

2.3 Operational Requirements

- 2.3.1 Defined management, admission, discharge and referral policies.
- 2.3.2 Demonstrable and documented formal audit and review of its activities and outcomes, with staff who have dedicated time to collect and manage data.
- 2.3.3 A documented orientation program for new staff.
- 2.3.4 Educational programs for medical staff, and a formal nursing education program.
- 2.3.5 An active research program, preferably with staff who have dedicated time to collect and manage data.
- 2.3.6 Suitable infection control and isolation procedures and facilities.
- 2.3.7 24 hour access to pharmacy, pathology, operating theatres and imaging services commensurate with the designated role of the hospital, and appropriate access to physiotherapy and other allied health services when necessary.
- 2.3.8 An active research program is desirable.

2.4 Design

- 2.4.1 A self-contained area, with easy access to the emergency department, operating theatres and organ imaging.
- 2.4.2 Appropriate design, providing a suitable environment with adequate space for patient care delivery, storage, staff accommodation (including office space), education and research.

2.5 Equipment and Monitoring

Equipment and monitoring of appropriate type and quantity suitable for the function of the unit and appropriate as judged by contemporary standards.

2.6 Suitability for training

Level II units may apply for maximum

accreditation as C12 training units, but may also apply for C6 accreditation (refer Policy Document IC-3 'Guidelines for Intensive Care Units seeking Accreditation for Training in Intensive Care Medicine').

3. Level I Intensive Care Unit

A Level I ICU should be capable of providing immediate resuscitation and short term cardio-respiratory support for critically ill patients. It will also have a major role in monitoring and prevention of complications in 'at risk' medical and surgical patients. It must be capable of providing mechanical ventilation and simple invasive cardiovascular monitoring for a period of at least several hours. Provision of such care for more than 24 hours is allowed for patients with essentially single system failure but only within the context of ongoing discussion with a Level II or Level III unit with which the host unit has an established referral relationship. Such a relationship should include mutual transfer and back transfer policies and an established, joint review process. All patients admitted to a Level I unit must be referred to the Medical Director of the unit or the specialist taking responsibility for the unit at the time of admission.

The patients most likely to benefit from Level I care include:

- a) Patients with uncomplicated myocardial ischaemia.
- b) Post-surgical patients requiring special observations and care.
- c) Unstable medical patients requiring special observations and care beyond the scope of a conventional ward, and
- d) Patients requiring short term mechanical ventilation.

3.1 Work practice/caseload

The number of ICU beds and number of patients' admissions should be sufficient to maintain clinical skills by both medical and nursing staff.

A Level I unit should have:

3.2 Staffing Requirements

- 3.2.1 A medical director who is experienced in intensive care medicine.
- 3.2.2 Consultant support, always available from a specialist with experience in intensive care medicine.
- 3.2.3 In addition to the attending specialist, at least one registered medical practitioner with an appropriate level of experience, rostered for the intensive care unit at all times.
- 3.2.4 A nursing staff: patient ratio of 1:1 for all critically ill patients.

- 3.2.5 A nurse in charge of the unit with a post registration qualification in intensive care or in the clinical specialty of the unit.
- 3.2.6 The majority of nursing staff with a post registration qualification in intensive care or in the specialty of the unit.
- 3.2.7 All nursing staff in the unit responsible for direct patient care being registered nurses.
- 3.2.8 Support staff as appropriate, eg. biomedical engineer, clerical and scientific staff.
- 3.2.9 A minimum of two registered nurses present in the unit at all times when there is a patient admitted to the unit.

3.3 Operational Requirements

- 3.3.1 Defined management, admission, discharge and referral policies.
- 3.3.2 Demonstrable and documented formal audit and review of its activities and outcomes.
- 3.3.3 A documented orientation program for new staff.
- 3.3.4 Educational programs for medical staff, and a formal nursing education program.
- 3.3.5 Suitable infection control and isolation procedures and facilities.
- 3.3.6 24 hour access to pharmacy, pathology, operating theatres and tertiary level imaging services, and appropriate access to physiotherapy and other allied health services when necessary.
- 3.3.7 An active research program is desirable.

3.4 Design

- 3.4.1 A self-contained area, with easy access to the emergency department, operating theatres and organ imaging.
- 3.4.2 Appropriate design, providing a suitable environment with adequate space for patient care delivery, storage, staff accommodation (including office space), education and research.

3.5 Equipment and Monitoring

The type and quantity of equipment and monitoring suitable for the function of the unit and appropriate as judged by contemporary standards.

3.6 Suitability for training

Level I units are ineligible to apply for accreditation for training in Intensive Care Medicine.

4. Paediatric Intensive Care Unit

A tertiary referral Paediatric Intensive Care Unit (PICU) should be capable of providing comprehensive critical care including complex multi-system life support for an indefinite period to children less than 16 years. These units should have a commitment to academic education and research. All patients admitted to the unit must be referred for management to the attending intensive care specialist.

A PICU should have:

4.1 Work practice/caseload

- 4.1.1 Sufficient staffed and equipped beds (usually a minimum of six beds) to provide for its clinical and teaching functions.
- 4.1.2 Sufficient clinical workload to maintain clinical expertise (usually a minimum of 300 patient admissions per annum).

4.2 Staffing Requirements

- 4.2.1 A medical director who is a Fellow of the Joint Faculty of Intensive Care Medicine. The medical director should have a clinical practice predominantly in paediatric intensive care medicine.
- 4.2.2 Sufficient supporting specialist(s) so that consultant support is always available to the medical staff in the unit. For training units classified as C12 or C24 (refer Policy Document IC-3 'Guidelines for Intensive Care Units seeking Accreditation for Training in Intensive Care Medicine') trainees must be exposed to at least two specialists who are Fellows of the Joint Faculty of Intensive Care Medicine. At least two specialists should have a minimum of 50% involvement in the unit. There should also be sufficient specialist staff to provide for reasonable working hours and leave of all types and to allow the duty specialist to be available exclusively to the unit at all times. The majority of attending specialists in the unit should be Fellows of the Joint Faculty of Intensive Care Medicine.
- 4.2.3 At least one of the specialists exclusively rostered to the unit at all times. During normal working hours this specialist must be predominantly present in the unit, and at all times be able to proceed immediately to it.
- 4.2.4 In addition to the attending specialist, at least one registered medical practitioner with an appropriate level of experience exclusively rostered and predominantly present in the unit at all times.

- 4.2.5 A minimum of 1:1 nursing for ventilated and other similarly critically ill patients, and nursing staff available to greater than 1:1 ratio for patients requiring complex management (eg. ventricular assist device).
- 4.2.6 A nurse in charge of the unit with a post registration qualification in intensive care or in the clinical specialty of the unit.
- 4.2.7 The majority of nursing staff with a post registration qualification in intensive care or in the specialty of the unit.
- 4.2.8 All nursing staff in the unit responsible for direct patient care being registered nurses.
- 4.2.9 At least one nurse educator.
- 4.2.10 Support staff as appropriate, eg. biomedical engineer, clerical and scientific staff.
- 4.3 Operational Requirements
 - 4.3.1 Defined management, admission, discharge and referral policies.
 - 4.3.2 Demonstrable and documented formal audit and review of its activities and outcomes with staff who have dedicated time to collect and manage data.
 - 4.3.3 A documented orientation program for new staff.
 - 4.3.4 Educational programs for medical staff, and a formal nursing education program.
 - 4.3.5 An active research program, preferably with staff who have dedicated time to collect and manage data.
 - 4.3.6 Suitable infection control and isolation procedures and facilities.
 - 4.3.7 24 hour access to pharmacy, pathology, operating theatres and tertiary level imaging services, and appropriate access to physiotherapy and other allied health services when necessary.
- 4.4 Design
 - 4.4.1 A self-contained area, with easy access to the emergency department, operating theatres and organ imaging.
 - 4.4.2 Appropriate design, providing a suitable environment with adequate space for patient care delivery, storage, staff accommodation (including office space), education and research.
- 4.5 Equipment and Monitoring

Equipment and monitoring of appropriate type and quantity suitable for the function of the unit

and appropriate as judged by contemporary standards.

4.6 Suitability for training

Paediatric ICU's may apply for accreditation of training as C6, C12 or C24 units as detailed in Policy Document IC-3 'Guidelines for Intensive Care Units seeking Accreditation for Training in Intensive Care Medicine'.

Generic Requirements for Intensive Care Units

An Intensive Care Unit (ICU) is a specially staffed, and equipped, separate and self-contained section of a hospital for the management of patients with life-threatening or potentially life-threatening, and reversible or potentially reversible organ failure.

An ICU provides resources for the support of patients and their families, and utilises the specialised skills of medical, nursing and other staff experienced in the management of critically ill patients. These skills and resources, necessary to care for the critically ill, are most efficiently concentrated in one area of the hospital. This does not preclude the division of one ICU into a higher level (eg. for ventilated patients) and lower or 'step-down' level (eg. for post-operative patients), nor does it preclude the siting of specific high dependency areas elsewhere in the hospital (eg. neurosurgical, post-operative cardiothoracic area). Neonatal and Paediatric Intensive Care Units and Coronary Care Units should preferably be separate from general ICU's. However, coronary care patients and children are effectively managed in general ICU's, where necessary.

Within each unit, policies should be available which detail the admission and discharge criteria of patients. There should also be protocols for retrieving patients, and for transferring patients to other intensive care units for more comprehensive patient care when necessary.

5. Staffing

The concentration of staff and equipment to care for critically ill patients in one area of the hospital encourages efficient use of expertise and limited resources.

5.1 Medical Staff

The medical director of Level II and III units and paediatric units and the majority of all senior medical staff appointed to Level III units and paediatric units, should be Fellows of the Joint Faculty of Intensive Care Medicine. Sufficient specialist staff with experience in intensive care to provide for administration, teaching, research, reasonable working hours and leave of all types are necessary. Except for Level I units, there must be at least one specialist exclusively rostered to the unit at all times together with 24 hour full-time junior medical staff with an appropriate level of experience rostered exclusively at all times. In Level III units and Paediatric units there must be access to a broad range of specialty consultants.

5.2 Nursing Staff

The nursing staff: patient ratio and the total number of nursing staff required by each unit depends on many variables such as the total number of patients, severity of illness of patients, the method of rostering nursing staff on 8 or 12 hour shifts, as well as individual policies for support and monitoring in each unit. All nurses involved in direct patient care should be registered nurses and the nurse in charge and the majority of nursing staff in each unit should have a post registration qualification in intensive care or in the specialties of the unit. Level I & II units should be capable of providing a nursing staff: patient ratio of 1:1 for all critically ill patients. Level III units and Paediatric units should be capable of providing nursing care to greater than 1:1 ratio for critically ill or unstable patients.

An artificially ventilated patient needs at least one nurse at the bedside at all times. A ventilated patient with more complex support such as renal replacement therapy and inotropic support may need two nurses per patient for at least some of the shift. Others such as post-operative patients admitted for overnight monitoring and treatment with a continuous epidural and supplemental oxygen, may require only one nurse per 2-3 patients. Allowances must be made for meal breaks, handover times, holidays, sickness, study leave, etc.

5.3 Other Staff

Depending on the needs of the unit, physiotherapists, radiographers, dieticians, technicians, including biomedical engineering and scientific officers, cleaning staff, social workers, occupational therapists, interpreters, pastoral, secretarial and clerical staff are all required. Secretarial services should be available to support educational and administrative activities. These should be separate from ward clerk duties in the ICU.

5.4 Educational

The unit should have a documented educational program for medical, nursing and other staff. Level III Units and Paediatric Units should have a nurse educator and formal nursing educational program. Level II units should have access to a nurse educator.

6. Operational

All units should have defined policies for admission, management, discharge and referral of patients. All units should be under the direction of a specialist in intensive care medicine. This person should institute agreed policies, develop a team approach for management and be responsible to the hospital administration through appropriate channels.

Clinical management of the patient must be achieved within the framework of agreed policies (eg. procedural and infection control, including defined antibiotic policies). All units should have documented and demonstrable procedures for formal audit, peer review and quality assurance. Services required on a 24 hour basis include imaging, laboratory and other diagnostic facilities. Except for Level I units, all patients admitted must be referred for management to the attending intensive care specialist. Level III units and paediatric units must have an active research program. In Level II units, an active research program should be encouraged.

7. Structure of an ICU

7.1 Siting

The ICU should be a separate unit within the hospital with access to the Emergency Department, operating theatres and organ imaging on campus.

7.2 Design

A high standard of intensive care medicine is influenced by good design and adequate space. Whenever renovations or new structures are being planned there are certain features which should be considered.

7.2.1 *Patient Area* – in adult intensive care units at least 20m² floor area is required for each bedspace in an open area exclusive of service areas and circulation space as indicated below. Paediatric units may utilise less than 20m² when utilising cots rather than beds. At least one wash basin for every two beds is recommended and one for each bedspace is preferred. At least one single room should be available for every six open space beds. Each single room needs to have its own wash basin. There must be an adequate number of service outlets depending on the purpose of the unit. A Level III unit will require at least three oxygen, two air and three suction outlets, and at least 16 power points for each bedspace. The electrical wiring and protection of patient treatment areas must be Cardiac Protected Status AS3003. Adequate and appropriate lighting for clinical observation must be available. Service outlets and lighting must comply with standards prescribed by the appropriate authority. For the psychological well-being of patients and staff, windows and bed access to the exterior are desirable features. Design of the unit should take into account the need for patient privacy.

- 7.2.2 *Working Area* – the working area must include adequate space for staff to work in comfort while maintaining visual contact with the patient. Adequate space must be allowed for patient monitoring, resuscitation equipment, and medical storage areas (including a refrigerator). The Unit needs space for a mobile x-ray machine, and associated equipment. The x-ray viewing facilities must enable simultaneous viewing of multiple x-rays. There should be adequate room for telephones and other communication systems, computers and data collecting, also for the storage of stationery. Adequate space for a receptionist and/or ward clerk must be available.
- 7.2.3 *Environment* – the unit should have appropriate air conditioning which allows control of temperature, humidity and air change.
- 7.2.4 *Isolation area* – the unit must be capable of isolation procedures.
- 7.2.5 *Equipment storage area* – eg. for monitors, ventilators, infusion pumps and syringes, dialysis equipment, disposables, fluids, drip stands, trolleys, blood warmers, suction apparatus, linen, large items of special equipment.
- 7.2.6 *Dirty utility* – area for cleaning appliances, urine testing, emptying and cleaning bed pans and urine bottles. Unit design should provide appropriate movement pathways for contaminated equipment.
- 7.2.7 *Staff Facilities* – should be sited close to the patient area and have adequate communication with it.
- 7.2.8 *Seminar Room* – should be situated close to the patient area with adequate communication and be equipped with seating, audiovisual aids, wall boards and other teaching aids.
- 7.2.9 *Nursing Offices* – separate offices must be provided at least for the Nurse in Charge and Nurse Educator.
- 7.2.10 *Medical Offices* – each senior doctor should have adequate office space. There should be adequate office space for junior medical staff to perform educational, research or clerical work during quiet clinical periods.
- 7.2.11 *Relatives' area* – a separate waiting area must be available (with drinks dispenser, radio, television and comfortable seating desirable). A separate interview room and a separate area for distressed relatives should be available and overnight rooms for relatives should also be considered.
- 7.2.12 *Secretarial area* – a separate area should be available for departmental secretarial assistance. Records storage has to be accommodated.
- 7.2.13 *Computing facilities* – a separate area should be designated for computerised patient data entry and analysis. Confidentiality should be built into any system.
- 7.2.14 *Cleaners' area* – for storage of equipment and materials.
- 7.2.15 *Workshop and Laboratory* – should be considered for any unit which does not rely on centralised services.
- 7.2.16 *Library facilities* – an appropriate range of bench manuals, textbooks, journals and access to electronic medical information should be available 24 hours a day within the unit complex.

8. Equipment

- 8.1 The type and quantity of equipment will vary with the type, size and function of the unit and must be appropriate to the workload of the Unit, judged by contemporary standards.
- 8.2 There must be a regular system in force for checking the safety of equipment.
- 8.3 Basic equipment should include:
- ventilators
 - hand ventilating assemblies
 - suction apparatus
 - airway access equipment, including bronchoscopic equipment
 - vascular access equipment
 - monitoring equipment, both non-invasive and invasive
 - defibrillation and pacing facilities
 - equipment to control patient's temperature
 - chest drainage equipment
 - infusion and specialised pumps
 - portable transport equipment
 - specialised beds

Other equipment (eg. renal replacement therapy and intra-aortic balloon counterpulsation etc.) for specialised diagnostic or therapeutic procedures should be available when clinically indicated and in order to support the delineated role of the ICU.

Protocols and in-service training for medical and nursing staff need to be available for the use of all equipment, including steps to be taken in the event of malfunction.

9. Monitoring

Adequate monitoring is a core capability of all Intensive Care Units.

The described monitoring methods below are not meant to replace vigilance by medical and nursing staff in the unit and may fail to detect unfavourable clinical developments. Furthermore, it is understood that the use of monitoring does not guarantee any specific patient outcome.

The health care facility is responsible for provision of equipment for intensive care and monitoring on the advice of one or more designated intensive care specialists, and for effective maintenance of this equipment.

9.1 Personnel

Clinical monitoring by a vigilant nurse is the basis of intensive patient care. This should be supplemented by appropriate devices to assist the nurse.

9.2 Patient Monitoring

9.2.1 Circulation

The circulation must be monitored at frequent and clinically appropriate intervals by detection of the arterial pulse, ECG display and measurement of the arterial blood pressure.

9.2.2 Respiration

Respiratory function should be assessed at frequent and clinically appropriate intervals by observation, supported by capnography and blood gas analysis.

9.2.3 Oxygenation

The patient's oxygenation should be assessed at frequent and clinically appropriate intervals by observation, pulse oximetry and blood gas analysis as appropriate.

9.3 Equipment (including portable equipment used for patient transports)

9.3.1 *Piped gas supply failure alarm* – There must be piped gas supply failure alarms.

9.3.2 *Oxygen supply failure alarm* – An automatically activated device to monitor oxygen supply pressure and to warn of low pressure must be fitted to ventilators.

9.3.3 *Oxygen analyser* – An oxygen analyser must be available to measure the oxygen

concentration delivered by ventilators or breathing systems.

9.3.4 *Alarms for Breathing System Disconnection or Ventilator Failure* – When an automatic ventilator is in use, a device capable of warning promptly of a breathing system disconnection or ventilator failure must be in continual operation.

9.3.5 *Ventilator volumes and pressures* – When a ventilator is in use, ventilatory volumes should be measured although it is accepted that this is not always possible with some ventilators used for paediatric and neonatal patients. Airway and respiratory circuit pressure must be monitored continuously and prompt warning given of excessive pressures.

9.3.6 *Humidifier temperature* – When a heated humidifier is in use monitoring of the inspired temperature must be available which alarms at high temperature.

9.3.7 *Electrocardiograph* – Equipment to monitor and continually display the electrocardiograph must be available for every patient.

9.3.8 *Pulse Oximeter* – A pulse oximeter must be available for every patient in the Intensive Care Unit.

9.3.9 *End tidal CO₂ monitor* – Capnography must be available at each bed in the Intensive Care Unit and must be used to confirm tracheal placement of the endotracheal or tracheostomy tube immediately after insertion.

9.3.10 *Air embolism* – When a patient is treated by renal replacement therapy, plasmapheresis or circulatory perfusion, monitoring for air embolism must be in use.

9.3.11 *Other Equipment* – When clinically indicated, equipment must be available to measure other physiological variables such as intra-arterial and pulmonary artery pressures, cardiac output, inspiratory pressure and air flow, intracranial pressure, temperature, neuromuscular transmission.

OTHER DOCUMENTS RELEVANT TO INTENSIVE CARE

IC-2 'The Duties of an Intensive Care Specialist in Hospitals Accredited for Training in Intensive Care'

IC-3 'Guidelines for Intensive Care Units seeking Accreditation for Training in Intensive Care Medicine'

IC-4 'The Supervision of Vocational Trainees in Intensive Care'

- IC-6 'The Role of Supervisors of Training in Intensive Care Medicine'
- IC-7 'Secretarial Services to Intensive Care Units'
- IC-13 'Recommendations on Standards for High Dependency Units Seeking Accreditation for Training in Intensive Care Medicine'

This policy document has been prepared having regard to general circumstances, and it is the responsibility of the practitioner to have regard to the particular circumstances of each case, and the application of this policy document in each case.

Policy documents are reviewed from time to time, and it is the responsibility of the practitioner to ensure that the practitioner has obtained the current version. Policy documents have been prepared having regard to the information available at the time

of their preparation, and the practitioner should therefore have regard to any information, research or material which may have been published or become available subsequently.

Whilst the Joint Faculty endeavours to ensure that policy documents are as current as possible at the time of their preparation, it takes no responsibility for matters arising from changed circumstances or information or material which may have become available subsequently.

Promulgated: October 1994
 Revised: November 1997
 Date of current document: June 2003

© This document is copyright and cannot be reproduced in whole or in part without prior permission.

JFICM Website: <http://www.jficm.anzca.edu.au>

Joint Faculty of Intensive Care Medicine

ABN 82 055 042 852

POLICY DOCUMENTS

- IC-1 (2003) Minimum Standards for Intensive Care Units *Bulletin August 2003, pg 69*
- IC-2 (2000) The Duties of an Intensive Care Specialist in Hospitals with Approved Training Posts *Bulletin November 2000, pg 53*
- IC-3 (2002) Guidelines for Intensive Care Units seeking Accreditation for Training in Intensive Care Medicine *Bulletin June 2002, pg 63*
- IC-4 (2000) The Supervision of Vocational Trainees in Intensive Care *Bulletin March 2000, pg 57*
- IC-5 (1995) Duties of Regional Education Officers in Intensive Care *Bulletin November 1995, pg 50*
- IC-6 (2002) The Role of Supervisors of Training in Intensive Care Medicine *Bulletin September 2002, pg 36*
- IC-7 (2000) Secretarial Services to Intensive Care Units *Bulletin March 2000, pg 58*
- IC-8 (2000) Quality Assurance *Bulletin November 2000, pg 55*
- IC-9 (1997) Statement on the Ethical Practice of Intensive Care Medicine *Bulletin November 2002, pg 57*
- IC-10 (2003) Minimum Standards for Transport of Critically Ill Patients *Bulletin March 2003, pg 29*
- IC-11 (2002) Guidelines for the In-Training Assessment of Trainees in Intensive Care Medicine *Bulletin June 2002, pg 66*
- IC-12 (2001) Examination Candidates Suffering from Illness, Accident or Disability *Bulletin November 2001, pg 63*
- IC-13 (2002) Recommendation on Standards for High Dependency Units Seeking Accreditation for Training in Intensive Care Medicine *Bulletin June 2002, pg 68*
- PS38 (1999) Statement Relating to the Relief of Pain and Suffering and End of Life Decisions *Bulletin June 1999, pg 93*
- PS39 (2003) Minimum Standards for Intra-hospital Transport of Critically Ill Patients *Bulletin June 2003, pg 90*
- PS40 (2000) Guidelines for the Relationship Between Fellows and the Healthcare Industry *Bulletin March 2000, pg 55*
- PS45 (2001) Statement of Patient's Rights to Pain Management *Bulletin March 2002, pg 72*
- PS48 (2003) Statement on Clinical Principles for Procedural Sedation *Bulletin March 2003, pg 73*
- PS49 (2003) Guidelines on the Health of Specialists and Trainees *Bulletin August 2003, pg 88*

13 May 2003

Joint Faculty Fellowship Examinations – 2004

GENERAL EXAMINATIONS

APRIL/MAY	LOCATION	DATE
WRITTEN SECTION	All Major Centres	5th April
ORAL SECTION	Sydney	13th - 14th May
CLOSING DATE		9th February

JULY/SEPTEMBER	LOCATION	DATE
WRITTEN SECTION	All Major Centres	26th July
ORAL SECTION	Melbourne	To be advised
CLOSING DATE		31st May

PAEDIATRIC INTENSIVE CARE EXAMINATION

JULY/SEPTEMBER	LOCATION	DATE
WRITTEN SECTION	All Major Centres	26th July
ORAL SECTION	Melbourne	To be advised
CLOSING DATE		31st May

CLOSING DATE FOR APPLICATIONS

Please note that late applications to present for a Faculty Examination after the closing date for that examination will not be accepted. This ruling must also apply to documentation in support of the application. For this reason, trainees are urged to send documented evidence of training to the Faculty Executive Officer early, even before the application to present for the examination, so that any problems in documentation can be clarified before the relevant examination closing date.

LATE APPLICATION AND LATE DOCUMENTATION WILL NOT BE ACCEPTED AFTER THE CLOSING DATE FOR AN EXAMINATION

ENTRY FEE: TBA

The examination fee is to be remitted in Australian dollars by cheque or credit card directly to the Faculty Office by the examination closing date together with completed Form 'G'

PLEASE TAKE INTO CONSIDERATION POSTAGE DELAYS WHEN SENDING APPLICATIONS NEAR TO THE CLOSING DATE.

OVERSEAS CANDIDATES SHOULD ALLOW EXTRA TIME FOR APPLICATIONS ACCOMPANIED BY A BANK DRAFT OR CREDIT CARD DETAILS TO ARRIVE BY THE CLOSING DATE.

Australian and New Zealand College of Anaesthetists

ABN 82 055 042 852

Review PS31 (2003)

RECOMMENDATIONS ON CHECKING ANAESTHESIA DELIVERY SYSTEMS

1. INTRODUCTION

An anaesthesia delivery system includes any machine, equipment or apparatus which supplies gases, vapours, local anaesthesia and/or intravenous anaesthesia agents in order to safely and reliably induce and maintain anaesthesia.

2. PRINCIPLES

- 2.1 Anaesthesia delivery systems must be serviced at regular and specified intervals.
- 2.2 The Hospital, Anaesthesia Department or body responsible for the equipment shall keep a detailed record of the service requirements for all anaesthesia delivery systems. These requirements will be based on appropriate Australian or New Zealand Standards, manufacturer's guidelines, and Biomedical Engineering and Anaesthesia Department recommendations. They shall describe calibration protocols and the intervals at which these must be performed.
- 2.3 A prominent label that is visible to the anaesthetist must be attached to all anaesthesia delivery systems to advise of past service(s) and to indicate when the next service is due.
- 2.4 To ensure early detection of any failure in an anaesthesia delivery system, appropriate alarms must be present, and patient monitoring as specified in College Professional Document PS18 *Recommendations on Monitoring During Anaesthesia* must be provided.
- 2.5 There must be a secondary facility to maintain oxygenation and ventilation of the patient should failure of the primary systems occur.

3. CHECKING ANAESTHESIA DELIVERY SYSTEMS

- 3.1 Every anaesthesia delivery system must be checked before use to ensure that it will function correctly. This document requires three different levels of checks:
 - 3.1.1 **Level One check.** This is very detailed and is required a) on any new system and b) on all systems after servicing. This check will usually be performed by the service

person – whether from the equipment provider, or from the Biomedical Engineering Department.

- 3.1.2 **Level Two check.** This should be performed at the start of each anaesthesia session.

- 3.1.3 **Level Three check.** This should be performed immediately before commencing each anaesthetic.

- 3.2 The Anaesthesia Department is responsible for:

- 3.2.1 Defining minimum requirements for each check in accordance with section 4. These must be appropriate for the specific system under test.

- 3.2.2 Attaching these check-lists to each anaesthesia delivery system where appropriate.

- 3.2.3 Training and accreditation of the personnel involved with each check as follows:

- 3.2.3.1 **Level One.** Attendance at a manufacturer's course or a programme developed by the hospital's Anaesthesia Department in consultation with a qualified Biomedical Engineer.

- 3.2.3.2 **Levels Two and Three.** All Anaesthesia Department personnel must be trained and accredited in correct anaesthesia system checking procedures.

4. PROTOCOLS

- 4.1 **Level One check.** This must be performed by a suitably qualified person (usually the service provider) on all anaesthesia delivery systems a) before they enter service and b) following servicing. The check shall include:

- 4.1.1 **Gas Delivery Devices.**

- 4.1.1.1 Quantifying and minimising leaks

- 4.1.1.2 Excluding crossed pipelines within the anaesthesia delivery system
- 4.1.1.3 Ascertaining the correct functioning of non-return valves throughout the system
- 4.1.1.4 Ascertaining the integrity of oxygen failure prevention and warning devices
- 4.1.1.5 Checking the composition of delivered gases and their flowrate

4.1.2 Inhalational Anaesthesia Devices

- 4.1.2.1 Ascertaining that no leakage occurs
- 4.1.2.2 Checking any thermostat function
- 4.1.2.3 Calibrating output at both high and low flow rates
- 4.1.2.4 Checking function of any interlocking or other mechanisms

4.1.3 Intravenous and Local Anaesthesia Delivery Devices

- 4.1.3.1 Checking electrical safety
- 4.1.3.2 Calibrating output rate and accuracy
- 4.1.3.3 Calibrating occlusion pressure
- 4.1.3.4 Checking alarm function and accuracy
- 4.1.3.5 Ensuring operation of all user functions and parameters
- 4.1.3.6 Checking serviced mechanisms operate correctly
- 4.1.3.7 Checking battery performance

4.1.4 **Other Equipment.** The check should include the function, safety and accuracy of any other equipment included within the delivery system (such as to provide for ventilation, scavenging and monitoring).

4.1.5 The check shall verify that the system as supplied complies with the relevant Australian or New Zealand Standards.

4.1.6 Documentation of the check is required and shall include the date, what was checked, the results of the check, and who performed the check

4.2 **Level Two check.** This check is the responsibility of the anaesthetist but may be undertaken by a suitably qualified person (such as an appropriately trained nurse or technician) in accordance with a protocol specific for the particular system at least at the beginning of each session. Thus several different protocols may be

required in a single hospital. These will serve to verify the correct functioning of the anaesthesia delivery system before it is used for patient care. Not all the following checks may be appropriate in some self-checking anaesthesia workstations.

4.2.1 **Service label.** Confirm that the device has been appropriately serviced and is not past its service date

4.2.2 High Pressure System.

4.2.2.1 Check oxygen cylinder supply. Ensure that cylinder content is sufficient for its intended purpose.

4.2.2.2 Check that piped gas supplies (where present) are at the specified pressures and that after completing the high pressure system checks, the cylinders are turned off.

4.2.2.3 To confirm that pipeline gas supplies are not crossed, use a multi-gas analyser to check gas composition at the common gas outlet, the inspiratory limb or the Y-piece.

4.2.3 Low Pressure System.

4.2.3.1 Check flow controls. Turn on each gas and observe the appropriate operation of the corresponding flow indicator. Verify the functioning of the anti-hypoxic device.

4.2.3.2 If vaporiser/s are present:

4.2.3.2.1 Check that adequate anaesthetic liquid is present.

4.2.3.2.2 Ensure that the vaporiser filling ports are closed.

4.2.3.2.3 Check correct seating and locking of a detachable vaporiser.

4.2.3.2.4 Test for circuit leaks for each vaporiser in both on and off positions.

4.2.3.2.5 Ensure power is available for electrically operated vaporisers.

4.2.3.3 Check for pre-circuit leaks using a protocol appropriate for the specific anaesthesia delivery system.

4.2.3.4 **Breathing systems.** Inspect and check the breathing system to ensure correct assembly and absence of leaks. The precise protocol will depend on the anaesthesia circuit to be used.

- 4.2.3.4.1 Perform leak test on the breathing system by occluding the patient and rebreathing bag connections, setting a fresh gas flow of 300 ml/min and ensure that the pressure rises to >30 cm H₂O from zero.
- 4.2.3.4.2 For circle systems, inspect the integrity of the system, its connections and check the unidirectional valves. This can be accomplished with a breathing bag on the patient limb of the Ypiece. Ventilate the system manually using an appropriate fresh gas flow. Observe inflation and deflation of the attached breathing bag and check for normal system resistance and compliance. Observe movement of any visible unidirectional valves. Check function of adjustable pressure limiting (APL) valve by ensuring easy gas spill through APL when the two breathing bags are squeezed.
- 4.2.3.4.3 If a carbon dioxide absorber is present, check the colour of the carbon dioxide absorbent. If the absorbent may have dried out by prolonged dry gas flow then it should be replaced in order to avoid the potential for production of carbon monoxide.
- 4.2.4 **Automatic Ventilation System.** This should be checked according to the manufacturer's recommendations. A test lung (such as a suitably compliant bag) may be used to check the function of the ventilator and the delivery of adequate tidal volume. If a test lung is used, the fresh gas flow should be set to zero, or minimal flow, to help detect leaks in the ventilator. Correct function of disconnection and high pressure alarms and the high pressure relief valve if present should be checked at this time.
- 4.2.5 **Scavenging System.** Check that the scavenging system is properly connected, the scavenging suction flow is adjusted appropriately and that the scavenging outlet is not blocked. This should be checked after connection to the APL valve and appropriate adjustment of the scavenging gas flow. With the patient outlet occluded and the APL valve open, a full breathing system should not normally empty. If emptying does occur, the absence of negative pressure in the circuit system should be confirmed.
- 4.2.6 **Emergency Ventilation System.** Verify the presence and functioning of an alternative method of providing oxygen and of controlled ventilation (such as a self-inflating bag).
- 4.2.7 **Intravenous and Local Anaesthesia Delivery Devices.** These should be checked according to the manufacturer's recommendation and should include that:
- 4.2.7.1 The device is appropriate for the intended function with special attention to its range of flow rate and occlusion pressure
- 4.2.7.2 The anaesthetic is correctly loaded and labelled
- 4.2.7.3 Any program is correct with special attention to:
- 4.2.7.3.1 Syringe/container type and volume
- 4.2.7.3.2 Anaesthetic concentration
- 4.2.7.3.3 Flow rate and units
- 4.2.7.3.4 Any alarm parameters
- 4.2.7.4 The device is appropriately powered by mains and/or batteries
- 4.2.7.5 All connections to the device and onto the patient are secure
- 4.2.7.6 There is no leakage
- 4.2.7.7 The device actually functions and the drug is delivered.
- 4.2.7.8 An anti-reflux valve is installed if sharing a delivery line.
- 4.2.8 **Other apparatus to be used.** This should be checked according to specified protocols. Attention should be given to:
- 4.2.8.1 Equipment used for airway maintenance and intubation of the trachea.
- 4.2.8.2 Suction apparatus.
- 4.2.8.3 Gas analysis devices.
- 4.2.8.4 Monitoring equipment. Special attention should be paid to alarm limits and any necessary calibration.
- 4.2.8.5 Intravenous infusion devices.
- 4.2.8.6 Devices to minimise hypothermia during anaesthesia.

4.2.8.7 Breathing circuit humidifiers.

4.2.8.8 Breathing circuit filters.

4.2.9 **Final check.** Ensure vaporisers are turned off and that the breathing system is purged with air or oxygen as appropriate.

4.2.10 Documentation of the completion of the check is recommended.

4.3 **Level Three check.** Immediately before commencement of each anaesthetic, the anaesthetist should:

4.3.1 Check a changed vaporiser using the protocol outlined in 4.2.3.2.

4.3.2 Check a changed breathing circuit using the protocol outlined in 4.2.3.4.

4.3.3 Check any intravenous or local anaesthesia devices using the protocol outlined in 4.2.7

4.3.4 Check other apparatus as specified in 4.2.8

RELATED ANZCA DOCUMENTS

T1 *Recommendations on Minimum Facilities for Safe Anaesthesia Practice in Operating Suites*

T2 *Recommendations on Minimum Facilities for Safe Anaesthesia Practice Outside Operating Suites*

PS18 *Recommendations on Monitoring During Anaesthesia*

COLLEGE PROFESSIONAL DOCUMENTS

College Professional Documents are progressively being coded as follows:

TE *Training and Educational*
EX *Examinations*
PS *Professional Standards*
T *Technical*

POLICY – defined as ‘a course of action adopted and pursued by the College’. These are matters coming within the authority and control of the College.

RECOMMENDATIONS – defined as ‘advisable courses of action’.

GUIDELINES – defined as ‘a document offering advice’. These may be clinical (in which case they will eventually be evidence-based), or non-clinical.

STATEMENTS – defined as ‘a communication setting out information’.

This document is intended to apply wherever anaesthesia is administered.

This document has been prepared having regard to general circumstances, and it is the responsibility of the practitioner to have express regard to the particular circumstances of each case, and the application of this document in each case.

Professional documents are reviewed from time to time, and it is the responsibility of the practitioner to ensure that the practitioner has obtained the current version. Professional documents have been prepared having regard to the information available at the time of their preparation, and the practitioner should therefore have regard to any information, research or material which may have been published or become available subsequently.

Whilst the College endeavours to ensure that professional documents are as current as possible at the time of their preparation, it takes no responsibility for matters arising from changed circumstances or information or material which may have become available subsequently.

Promulgated: 1984

Reviewed: 1990, 1996, 1997

Date of current document: June 2003

© This document is copyright and cannot be reproduced in whole or in part without prior permission.

College Website: <http://www.anzca.edu.au>

Australian and New Zealand College of Anaesthetists

ABN 82 055 042 852

and

Faculty of Pain Medicine

and

Joint Faculty of Intensive Care Medicine

Australian and New Zealand College of Anaesthetists
and Royal Australasian College of Physicians

ABN 82 055 042 852

PS49 (2003)

GUIDELINES ON THE HEALTH OF SPECIALISTS AND TRAINEES

1. INTRODUCTION

This statement is intended to assist Fellows and trainees of the College, the Joint Faculty of Intensive Care Medicine and the Faculty of Pain Medicine with issues related to their own and their colleagues' health.

Maintenance of good health is an important individual responsibility, both personally and professionally. Good health encompasses both physical and mental well-being. Proper health care includes preventative measures such as appropriate lifestyle activities, health checks and screening, as well as the assessment and management of specific illnesses.

Specialists or trainees should not act in an informal therapeutic role in relation to health issues affecting colleagues. While it is important to support colleagues who have significant personal health issues, it is essential that they be encouraged to seek appropriate skilled professional help.

2. PERSONAL

- 2.1 Specialists and trainees should have an identified general practitioner.
- 2.2 Specialists and trainees should not self prescribe medication.
- 2.3 Specialists and trainees should seek arranged, formal consultations with colleagues about personal health issues, rather than informal or 'corridor' consultations.
- 2.4 Principles 2.1 - 2.3 should be applied to the care of close family members.

3. PROFESSIONAL

Departments, practice groups and individual anaesthetists, intensivists and pain medicine

practitioners should consider the following strategies to assist with health maintenance:

- 3.1 The promotion of attitudes and practices that facilitate access to general medical practitioners and other health professionals.
- 3.2 The compilation and maintenance of a readily available list of resources that may assist Specialists and Trainees with any health issues.
- 3.3 The adoption of orientation programs for new members.
- 3.4 Regular presentation and discussion of personal health related topics at training and continuing medical education meetings.
- 3.5 The establishment of systems for professional support, for example mentor or buddy systems. Such systems require appropriate resources, training and evaluation.
- 3.6 The development and ongoing review of rostering and work practices, including after hours call, in order to minimise the potential for error, fatigue and ill-health.
- 3.7 The promotion of guidelines for debriefing and support of staff following workplace and personal crises.
- 3.8 Specialists and Trainees should advise those in positions of responsibility, such as Directors of Departments or Supervisors of Training, of any health problems they have that impact upon their work. It is then the duty of those in positions of responsibility, together with the Specialist or Trainee, to take appropriate action. All other health issues are a private matter for the Specialist or Trainee concerned.

This document should be read in conjunction with:

TE18 - *Guidelines for Assisting Trainees with Difficulties*

PS16 - *Statement on the Standards of Practice of a Specialist Anaesthetist*

PS43 - *Statement on Fatigue and the Anaesthetist*

COLLEGE PROFESSIONAL DOCUMENTS

College Professional Documents are progressively being coded as follows:

TE	Training and Educational
EX	Examinations
PS	Professional Standards
T	Technical

POLICY – defined as ‘a course of action adopted and pursued by the College’. These are matters coming within the authority and control of the College.

RECOMMENDATIONS – defined as ‘advisable courses of action’.

GUIDELINES – defined as ‘a document offering advice’. These may be clinical (in which case they will eventually be evidence-based), or non-clinical.

STATEMENTS – defined as ‘a communication setting out information’.

This document is intended to apply wherever anaesthesia is administered.

This document has been prepared having regard to general circumstances, and it is the responsibility of the practitioner to have express regard to the particular circumstances of each case, and the application of this document in each case.

Professional documents are reviewed from time to time, and it is the responsibility of the practitioner to ensure that the practitioner has obtained the current version. Professional documents have been prepared having regard to the information available at the time of their preparation, and the practitioner should therefore have regard to any information, research or material which may have been published or become available subsequently.

Whilst the College endeavours to ensure that professional documents are as current as possible at the time of their preparation, it takes no responsibility for matters arising from changed circumstances or information or material which may have become available subsequently.

Promulgated: 2003

Date of current document: June 2003

© This document is copyright and cannot be reproduced in whole or in part without prior permission.

ANZCA Website: <http://www.anzca.edu.au>

FPM Website: <http://www.fpm.anzca.edu.au>

JFICM Website: <http://www.jficm.anzca.edu.au>

- PS26 (1999) Guidelines on Providing Information about the Services of an Anaesthetist *Bulletin November 1999, pg 63*
- P28 (1995) Policy on Infection Control in Anaesthesia *Bulletin March 1995, pg 38*
- PS29 (2002) Statement on Anaesthesia Care of Children in Healthcare Facilities without Dedicated Paediatric Facilities *Bulletin November 2002, pg 80*
- PS31 (2003) Recommendations on Checking Anaesthesia Delivery Systems *Bulletin August 2003, pg 85*
- PS37 (1998) Regional Anaesthesia and Allied Health Practitioners *Bulletin March 1998, pg 79*
- PS38 (1999) Statement Relating to the Relief of Pain and Suffering and End of Life Decisions *Bulletin June 1999, pg 93*
- PS39 (2003) Minimum Standards for Intrahospital Transport of Critically Ill Patients *Bulletin June 2003, pg 90*
- PS40 (2000) Guidelines for the Relationship Between Fellows and the Healthcare Industry *Bulletin March 2000, pg 55*
- PS41 (2000) Guidelines on Acute Pain Management *Bulletin November 2000, pg 80*
- PS42 (2000) Recommendations for Staffing of Departments of Anaesthesia *Bulletin March 2001, pg 63*
- PS43 (2001) Statement on Fatigue and the Anaesthetist *Bulletin March 2002, pg 69*
- PS44 (2001) Guidelines to Fellows Acting on Appointments Committees for Senior Staff in Anaesthesia *Bulletin March 2002, pg 71*
- PS45 (2001) Statement on Patients' Rights to Pain Management *Bulletin March 2002, pg 72*
- PS46 (2002) Recommendations for Training and Practice of Diagnostic Perioperative Transoesophageal Echocardiography in Adults *Bulletin November 2002, pg 73*
- PS47 (2002) Guidelines for Hospitals Seeking College Approval of Posts for Vocational Training in Diving and Hyperbaric Medicine *Bulletin November 2002, pg 82*
- PS48 (2003) Statement on Clinical Principles for Procedural Sedation *Bulletin June 2003, pg 97*
- PS49 (2003) Guidelines on the Health of Specialists and Trainees *Bulletin August 2003, pg 89*

August 2003

Australian And New Zealand College Of Anaesthetists

ABN 82 055 042 852

PROFESSIONAL DOCUMENTS

P = Professional T = Technical EX = Examinations
PS = Professional Standards TE = Training and Educational

TE1	(2003)	Recommendations for Hospitals Seeking College Approval for Vocational Training in Anaesthesia <i>Despatched with August 2003 Bulletin</i>
TE2	(2003)	Policy on Vocational Training Modules and Module Supervisor <i>Despatched with August 2003 Bulletin</i>
TE3	(2003)	Policy on Supervision of Clinical Experience for Vocational Trainees in Anaesthesia <i>Despatched with August 2003 Bulletin</i>
TE4	(2003)	Policy on Duties of Regional Education Officers in Anaesthesia <i>Despatched with August 2003 Bulletin</i>
TE5	(2003)	Policy for Supervisors of Training in Anaesthesia <i>Despatched with August 2003 Bulletin</i>
TE6	(2000)	Guidelines on the Duties of an Anaesthetist <i>Bulletin July 2000, pg 86</i>
TE7	(1999)	Secretarial and Support Services to Departments of Anaesthesia <i>Bulletin November 1999, pg 69</i>
TE8	(2003)	Guidelines for the Learning Portfolio for Trainees in Anaesthesia <i>Despatched with August 2003 Bulletin</i>
TE9	(1999)	Quality Assurance <i>Bulletin June 1999, pg 94</i>
TE10	(2003)	Recommendations for Vocational Training Programs <i>Despatched with August 2003 Bulletin</i>
TE11	(1999)	Formal Project Guidelines <i>Bulletin March 1999, pg 70</i>
TE13	(2003)	Guidelines for the Provisional Fellowship Program <i>Despatched with August 2003 Bulletin</i>
TE14	(2001)	Policy for the In-Training Assessment of Trainees in Anaesthesia <i>Bulletin November 2001, pg 84</i>
TE17	(2003)	Policy on Advisors of Candidates for Anaesthesia Training <i>Despatched with August 2003 Bulletin</i>
TE18	(2000)	Guidelines for Assisting Trainees with Difficulties <i>Bulletin March 2001, pg 76</i>
EX1	(2001)	Policy on Examination Candidates Suffering from illness, Accident or Disability <i>Bulletin November 2001, pg 75</i>
T1	(2000)	Recommendations on Minimum Facilities for Safe Anaesthesia Practice in Operating Suites <i>Bulletin March 2001, pg 68</i>
T2	(2000)	Recommendations on Minimum Facilities for Safe Anaesthesia Practice outside Operating Suites <i>Bulletin March 2001, pg 72</i>
PS1	(2002)	Recommendations on Essential Training for Rural General Practitioners in Australia Proposing to Administer Anaesthesia <i>Bulletin November 2002, pg 78</i>
PS2	(2001)	Statement on Credentialling in Anaesthesia <i>Bulletin March 2002, pg 65</i>
PS3	(2003)	Guidelines for the Management of Major Regional Analgesia <i>Bulletin March 2003, pg 70</i>
PS4	(2000)	Recommendations for the Post-Anaesthesia Recovery Room <i>Bulletin November 2000, pg 72</i>
PS6	(2001)	Recommendations on the Recording of an Episode of Anaesthesia Care (the Anaesthesia Record) <i>Bulletin November 2001, pg 77</i>
PS7	(1998)	The Pre-Anaesthesia Consultation <i>Bulletin March 1998, pg 73</i>
PS8	(1998)	The Assistant for the Anaesthetist <i>Bulletin March 1998, pg 75</i>
PS9	(2001)	Guidelines on Conscious Sedation for Diagnostic, Interventional Medical and Surgical Procedures <i>Bulletin June 2001, pg 88</i>
PS10	(1999)	The Handover of Responsibility During an Anaesthetic <i>Bulletin November 1999, pg 62</i>
PS12	(2001)	Statement on Smoking as Related to the Perioperative Period <i>Bulletin November 2001, pg 79</i>
PS14	(1998)	Guidelines for the Conduct of Major Regional Analgesia in Obstetrics <i>Bulletin November 1998, pg 81</i>
PS15	(2000)	Recommendations for the Perioperative Care of Patients Selected for Day Care Surgery <i>Bulletin November 2000, pg 75</i>
PS16	(2001)	Statement on the Standards of Practice of a Specialist Anaesthetist <i>Bulletin November 2001, pg 81</i>
PS18	(2000)	Recommendations on Monitoring During Anaesthesia <i>Bulletin November 2000, pg 78</i>
PS19	(2001)	Recommendations on Monitored Care by an Anaesthetist <i>Bulletin November 2001, pg 82</i>
PS20	(2001)	Recommendations for Responsibilities of the Anaesthetist in the Post-Operative Period <i>Bulletin November 2001, pg 83</i>
P21	(2003)	Guidelines on Conscious Sedation for Dental Procedures <i>Bulletin June 2003, pg 93</i>
P24	(1997)	Sedation for Endoscopy <i>Bulletin May 1997, pg 78</i>