THE HONG KONG COLLEGE OF ANAESTHESIOLOGISTS

香港麻醉科醫學院

NEWSLETTER

December 2000

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Message from the President

On behalf of the Council, I wish to report to you the progress of the following issues:

CSM 2001

Preparation for the CSM next year is progressing well. Having the opportunity to preview the programme, I can assure you that it will be of high scientific value. The Society of Anaesthetists of Hong Kong has generously donated HK$50,000 towards the cost of sponsoring an overseas speaker to enhance the scientific merit of this meeting. Our College has also decided that more overseas speakers should be invited for intensive care and pain management. This ensures that we will have a wide range of distinguished overseas speakers. Details can be viewed on the CSM website: www.csm2001.com. Alternatively, it is hyperlinked to the college homepage.

A satellite symposium in Beijing will follow the main meeting. This would provide a good opportunity for our fellows and members to meet our mainland colleagues and to visit some of their hospitals. When the details are finalized, the registration brochures will be distributed to all our fellows and members.

College Website

In order to increase the application of information technology in education and training, our homepage is linked to more journals and other useful sites. This provides a one-stop site to browse these resources on the Internet. The editorial board of 'Anaesthesia and Intensive Care' has generously agreed to our proposal of putting their abstracts in English and Chinese on our website.

Our Webmaster, Dr PT Chui would be delighted if any members or fellows who are interested in providing assistance, feedbacks or ideas can contact him.

Simulator Training

With the development of modern technology, comprehensive anaesthetic simulators can provide training in crisis management that is not possible by other means. This type of training can also offer an answer to the future requirement of continued professional development by the HKAM. Simulator workshops had been very popular. The College had been investigating the possibility of acquiring a simulator for many years. However, the set up cost is prohibitive. Recently, there is opportunity for the College to collaborate with a public hospital to set up a centre to conduct simulator training and training of other skills. Negotiation has progressed smoothly. Unfortunately, one of the two companies producing simulators in North America has recently ceased production. This will lead to some delays. A team of fellows led by Dr KF Ng will make their best effort to judge the merits of various options and make recommendation to the council.

Although the College can be relieved of the setup cost, this type of centers will still be expensive and labour intensive to run. It will not be successful without your support and participation.

Second International Congress of the HKAM

The Second International Congress of the HKAM was held from 2nd to 5th November 2000. Fellows of our College contributed to the following symposia: pain medicine, quality assurance and prehospital management. We have invited Dr Roger Goucke from Perth, Australia to be an international speaker at the congress. Dr Goucke also acted as an external examiner for the recent Diploma in Pain Management examination. Together with Professor Ngankee, Dr Goucke gave a lecture at a College meeting that was well attended.

I wish like to take this opportunity to wish you a prosperous 2001.

Dr TW Lee
President HKCA

Report on ASM in Anaesthesiology 2000 HK

The fifth annual scientific meeting jointly organized by HKCA and SAHK was held at the Sheraton Hong Kong & Towers Hotel on 8 to 10 September 2000. The theme of this year's meeting was "Perioperative Medicine in the New Millennium"; with a balanced coverage of topics related to anaesthesia, pain and intensive care. The meeting was well received and more than 250 participants attended.

Our International Guest Faculty included Professor Phillip O Bridenbaugh and Professor Neil MacIntyre from the United States, and Professor Mathieu Gielen from Holland.

The conference started off with an exciting whole day simulator session for crisis management held in the Polytechnic University. The off-site anatomy workshop for regional anaesthesia jointly organized with The Chinese University of Hong Kong was a great success. Refresher courses, difficult airway workshop and evidence based medicine workshops were all well attended. We also had an interesting debate on thoracic epidural anaesthesia awake or asleep; and the morning panel discussion on medical legal issues was extremely popular once again. Highlights on ventilator synchrony were given in the ICU symposium.

We had received plenty of abstracts for presentation this year. Substantial number of them came from the Mainland China. The Best Trainee Paper Prize went to Dr Kin Wah Lai (QEH) for his presentation on "Effect of age on Recovery from Remifentanil Anaesthesia".

After the closing ceremony, speakers and participants then relaxed into the enjoyable evening of wine tasting.

On behalf of the organizing committee I would like to thank all members, fellows and friends who had continuously supported the event. Finally I would like to thank the whole team of the organizing committee to make it a success.

We look forward to meeting you again in the CSM (HKCA and ANZCA) in May 2001.

Dr YF Chow

Chairman, ASM 2000

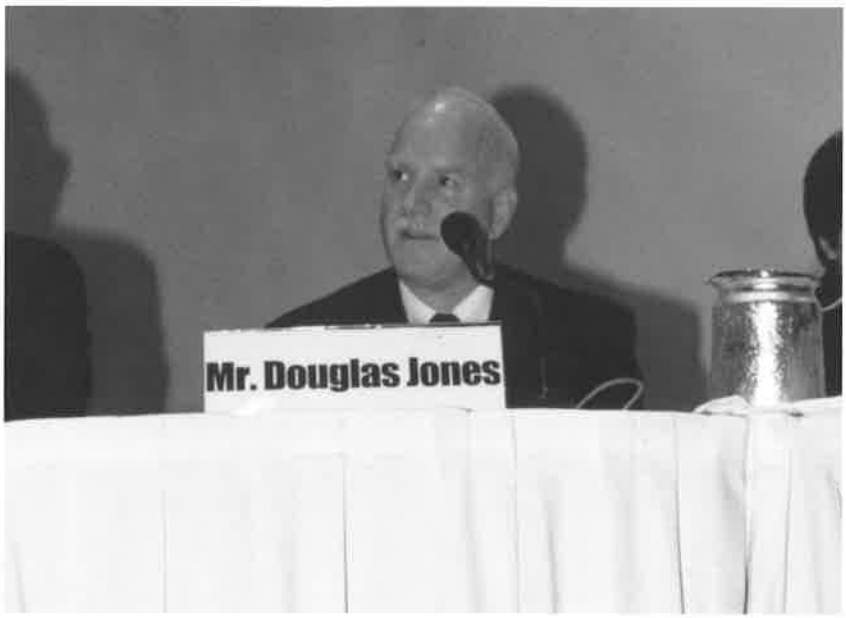
Highlights of the ASM in Anaesthesiology 2000

Airway workshop attracted quite a number of fellows and members

It was fun at the Trade Exhibition Area

Some of the international speakers with Professor Tony Gin and Dr CK Chan

The Plenary Session was well attended as usual



Dr Douglas Jones at the "Medical Liability vs Litigation"

Congregation was an exciting event

Examination Report

21 candidates sat the Intermediate Fellowship Examination June / July 2000. The pass rate was 48%. The following were successful.

Dr Chan, Ka Ming	AHNH
Dr Chan, Wai Yee Winnie	UCH
Dr Cheang, Si Ngai	UCH
Dr Fong, Cheuk Ying Cherry	UCH
Dr Lau, Yat Sing	PMH
Dr Lee, Yeuk Ying Samantha	QEH
Dr Luk, Chi Wing Irene	PMH
Dr Sit, Yiu Kwong	AHNH
Dr So, Chi Long	TMH
Dr Yuen, Man Ying	CMC

The College is grateful to Dr Ian Kestin of RCA, and Professor Duncan Blake of ANZCA for their assistance as External Examiners during the examination.

10 candidates sat the Final Fellowship Examination June / July 2000. The pass rate was 40%. The following were successful.

Dr Chua, Swee Kim	YCH
Dr Kwok, Keen Man	TMH
Dr Lam, Wang Leuk Desmond	PWH
Dr Chan, Yau Wai	QEH

The College is grateful to Dr Wynne Aveling of RCA, and Dr Graham Sharpe of ANZCA for their assistance as External Examiners during the examination.

Congratulations!!!

Dr Ian Kestin and Professor Blake with some of the local intermediate examiners

The panel of final examiners with the successful candidates

Fellowship Examinations 2001

Intermediate Fellowship Examinations

February/March	Date
Written	16 February 2001 (Fri)
Oral	30/31 March 2001 (Fri/Sat)
Closing Date	16 January 2001 (Tue)

July / August	Date
Written	29 June 2001 (Fri)
Oral	10/11 August 2001 (Fri/Sat)
Closing Date	29 May 2001 (Tue)

Examination Fee: $ 7,000

Final Fellowship Examination in Anaesthesiology

March/April	Date
Written	16 March 2001 (Fri)
Oral/OSCE	20/21 April 2001(Fri/Sat)
Closing Date	16 February 2001 (Fri)

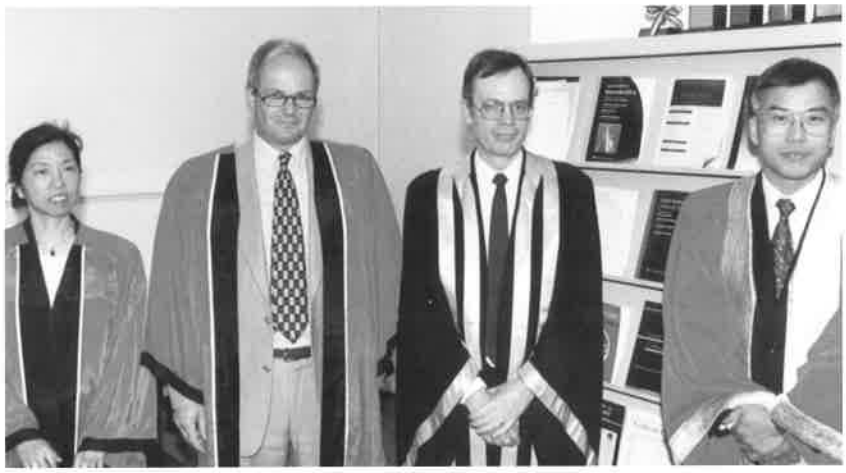
July / August	Date
Written	13 July 2001 (Fri)
Oral/OSCE	24/25 August 2001 (Fri/Sat)
Closing Date	13 June 2001 (Wed)

Examination Fee: $ 11,000

Application forms are available from Supervisors of Training and HKCA Office.

Examiners' Meeting

Final Examiner - Dr Wynne Aveling



Is heart surgery bad for your brain? Does clomethiazole help?

Wynne Aveling
University College London Hospitals

•Brain damage after cardiac surgery may be focal (Type I) or global (Type II)

Type I

The risk of major stroke in coronary surgery is quoted as 1-3% and is higher in valve surgery. Several factors increase the risk of stroke, many of which are not amenable to therapeutic intervention. These include age, generalised vascular disease, atheromatous aorta, carotid disease, history of stroke, diabetes, intracardiac thrombus, atrial fibrillation, long bypass times, hypotension and re-do surgery.

Problems with the aorta may be overcome by choice of cannulation site and minimising the number of clampings. Tight carotid stenosis increases the risk of Stroke[1] (odds ratio 3.3, absolute risk 5.4%). A case can be made for simultaneous carotid endarterectomy and CABG.

Type II

Global hypoxic/ischaemic brain damage can range from brain death or persistent vegetative state to diffuse neuropsychological deficit which may not be obvious except to close relatives or on sophisticated testing. The former is now very rare.

Neuropsychological deficits have been much investigated over the past 15 years and there is now a measure of agreement about testing and interpretation of what is abnormal.[2] Abnormalities are common at one week and decline with time but a significant number have persisting minor degrees of deficit.[3] In a study of arterial line filters, Pugsley et al[4] showed an incidence of 46% at 8 days and 8% at 8 weeks with filter compared to 71 % at 8 days and 27% at 8 weeks without filter. As techniques have improved the incidence of deficits has declined. At UCLH we have assessed over 1200 patients and have seen a fall from 33% in 1985 to 13% in 1992 using the same tests.

Strategies to minimise damage

- **Membrane oxygenators**
- **Arterial line filters**
- **Pulsatile flow**
- **Alpha stat pH management**
- **High MAP on bypass**
- **Off bypass CABG**
- **Hypothermia**
- **Drug interventions in the ischaemic cascade**

The first five are in common use in adult units. Off bypass CABG is in its infancy. The value of hypothermia is much debated. Profound hypothermia (12-18 degC) with circulatory arrest still has a place for aortic arch surgery and some neonatal work. Many believe moderate hypothermia (28-32) to have neuroprotective benefit though the "Warm heart investigators"[5] would dispute this. Certainly evidence is accumulating that hyperthermia is harmful.[6] Rapid rewarming may easily result in an overshoot if brain temperature is carefully measured.

Neuroprotection with drugs

Knowledge of the ischaemic cascade suggests a number of drug interventions that might be beneficial. It is much easier to show benefit in carefully controlled animal experiments than in human studies. Suggested approaches have been:

- **NMDA receptor antagonists eg remacemide**
- **Calcium channel blockers eg nimodipine**
- **Free radical scavengers**
- **Hyperpolarisation by GABA agonists eg clomethiazole**

Clomethiazole study

We have just completed a two centre prospective randomised study of clomethiazole vs saline in 245 patients. The drug has been shown to have protective effects in animal models of global and focal ischaemia. Using a battery of ten standard tests before and 4-7 weeks after CABG surgery, no signicant difference was found between clomethiazole and control groups.

References

1. Harrison MJG (1993) The potential role of carotid artery disease. In P Smith and K Taylor (eds), *Cardiac surgery and the brain*. Edward Arnold, London, pp 17-23
2. Shaw PJ et al (1986) *Br Med J*, **293**, 165-167
3. Murkin et al (1995) Statement on consensus *Ann Thorac Surg* **59**, 12 89-1295
4. Pugsley W et al (1994) *Stroke* **25**, 1393-1399
5. Naylor C et al (1994) *Lancet* **343**, 559-563
6. Martin T et al (1994) *Annals of Thoracic Surgery* **57**, 29 8-304

Report from Pain Management Committee

HKCA Pain Management Scientific Meetings Programme 2001 / 2002

Arranged by Pain Committee HKCA
Accredited for CME with HKCA, ANZCA, FPMANZCA

Hospitals	Date
UCH	Feb 2001
TMH	April 2001
PYNEH	July 2001
KWH	Oct 2001
QEH	Jan 2002
QMH	April 2002

Certificate Course in Anaesthetic Assistance

Year 2000

33 students of the Certificate Course in Anaesthetic Assistance sat the Final Examination on the 18 November 2000, and all of them passed. Graduation ceremony was held on the 25 November 2000 with Dr Kathleen So presenting the certificates.

The assessment of CCAA included:

- Log book
- Assignments
- Mid term Examination
- End of Term Examination

All student fulfilled the requirements

The comments from all sources were supportive and encouraging. The course will be modified according to the feedbacks and actual needs.

Commencement of Next Course

20 January 2001

Certificate Course in Anaesthetic Assistance

Year 2001 Intake

Entry requirements:

- Those with nursing qualifications must hold a certificate as an Enrolled Nurse or Registered Nurse, or their equivalent
- Those without nursing qualifications must have the Hong Kong Certificate of Education Examination with at least 5 passes or its equivalent
- Applicants aged over 21 and with relevant experience may be considered for mature student entry

Proposed class size:

- 25 to 30 per group, 2 to groups will be organised in the year 2001

Theoretical training:

- 40 Saturday half day lectures and workshops (January to November)
- Hours of lecture - 0900 to 1230 hours; 2 sessions each of 90 minutes duration (0900-1030, 1100-1230 hours)
- Hours of workshop - 0900 to 1230 hours; workshop will be conducted at the Operating Theatres of various hospitals

Practical training:

- Minimum of 20 hours per week for 20 weeks
- Documentation in form of log book

Lecture materials:

- Lecture notes supplied by lecturers

Assessment:

- >80% lecture attendance is required
- Submission of log book
- Assessment by supervisor (30% of marks)
- Assignments (30% of marks)
- Examination (40% of marks)

Examination:

- Paper - short questions
- OSCE - ten stations each of 5 minutes duration

Enquiries: Dr Anne Kwan, Department of Anaesthesia, United Christian Hospital

NIMBEX™ ABRIDGED PRESCRIBING INFORMATION:

PRESENTATION

A sterile solution containing 2 mg and 5mg cisatracurium (bis-cation) per mL, as cisatracurium besylate, without an antimicrobial preservative, supplied in an ampoule and vial respectively.

INDICATIONS

NIMBEX is an intermediate-duration, non-depolarising neuromuscular blocking agent for intravenous administration. NIMBEX Injection is indicated for use during surgical procedures including cardiac surgery, other procedures and in intensive care. It is used as an adjunct to general anaesthesia, or sedation in the Intensive Care Unit (ICU), to relax skeletal muscles, and to facilitate tracheal intubation and mechanical ventilation.

DOSAGE AND ADMINISTRATION

Use by intravenous bolus injection: Dosage in adults: Tracheal Intubation. The recommended intubation dose of NIMBEX Injection for adults is 0.15 mg/kg administered rapidly over 5 to 10 seconds. This dose produces good to excellent conditions for tracheal intubation 120 seconds following injection. High doses will shorten the time to onset of neuromuscular block. Maintenance. A dose of 0.03 mg/kg provides approximately 20 minutes of additional clinically effective neuromuscular block during opioid or propofol anaesthesia. Consecutive maintenance doses do not result in progressive prolongation of effect. Spontaneous Recovery. Once spontaneous recovery from neuromuscular block is underway, the rate is independent of the NIMBEX dose administered. During opioid or propofol anaesthesia, the median times from 25 to 75% and from 5 to 95% recovery are approximately 13 and 30 minutes, respectively. Reversal. Neuromuscular block following NIMBEX administration is readily reversible with standard doses of anticholinesterase agents. The mean times from 25 to 75% recovery and to full clinical recovery (T4:T1 ratio greater or equal to 0.7) are approximately 2 and 5 minutes respectively, following administration of the reversal agent at an average of 13% T1 recovery.

Dosage in paediatric patients aged 2 to 12 years: The recommended initial dose of NIMBEX Injection in children aged 2 to 12 years is 0.1mg/kg administrated over 5 to 10 seconds. A dose of 0.1mg/kg has a faster onset time, a shorter clinically effective duration and a faster spontaneous recovery profile than those observed in adults under similar anaesthetic conditions. Tracheal Intubation. Although has not been specifically studied in this group, onset is faster than in adults and therefore intubation should also be possible within 2 minutes of administration. Maintenance. A dose of 0.02 mg/kg provides approximately 9 minutes of additional clinically effective neuromuscular block during halothane anaesthesia. Consecutive maintenance doses do not result in progressive prolongation of effect. Spontaneous Recovery. During opioid anaesthesia, the median times from 25 to 75% and from 5 to 95% recovery are approximately 10 and 25 minutes, respectively. Reversal. Neuromuscular block following NIMBEX administration is readily reversible with standard doses of anticholinesterase agents. The mean times from 25 to 75% recovery and to full clinical recovery (T4:T1 ratio greater or equal to 0.7) are approximately 2 and 5 minutes respectively, following administration of the reversal agent at an average of 13% T1 recovery.

Use by intravenous infusion: Dosage in adults and children aged 2 to 12 years: Maintenance of neuromuscular block may be achieved by infusion of NIMBEX Injection. An initial infusion rate of 3 mcg/kg/min (0.18 mg/kg/hr) is recommended to restore 89 to 99% T1 suppression following evidence of spontaneous recovery. After an initial period of stabilisation of neuromuscular block, a rate of 1 to 2 mcg/kg/min (0.06 to 0.12 mg/kg/hr) should be adequate to maintain block in this range in most patients.

Infusion Delivery Rate of NIMBEX Injection 2 mg/mL.

Patient Weight (kg)	Dose (mcg/kg/min)				Infusion Rate
	1.0	1.5	2.0	3.0	
20	0.6	0.9	1.2	1.8	mL/hr
70	2.1	3.2	4.2	6.3	mL/hr
100	3.0	4.5	6.0	9.0	mL/hr

Dosage in children aged less than 2 years: No dosage recommendation for paediatric patients under 2 years of age can be made until further information becomes available.

Dosage in elderly patients: No dosing alterations are required in elderly patients.

Dosage in patients with renal impairment: No dosing alterations are required in patients with renal failure.

Dosage in patients with hepatic impairment: No dosing alterations are required in patients with end-stage liver disease.

Dosage in patients with cardiovascular disease: NIMBEX Injection has been administrated by rapid bolus injection in doses of up to 0.1mg/kg to patients undergoing coronary artery bypass graft (CABG) surgery, and was not associated with clinically significant cardiovascular effects.

Dosage in Intensive Care Unit (ICU) patients: An initial infusion rate of NIMBEX Injection of 3 mcg/kg/min (0.18 mg/kg/hr) is recommended for adult ICU patients. There may be wide interpatient variation in dosage requirements and these may increase or decrease with time. In clinical studies the average infusion rate was 3μg/kg/min [range 0.5 to 10.2μg/kg (body weight)/min (0.03 to 0.6 mg/kg/hr)]. The median time to full spontaneous recovery following long-term (up to 6 days) infusion of NIMBEX Injection in ICU patients was approximately 50 minutes.

Infusion Delivery Rate of NIMBEX Injection 5 mg/mL.

Patient Weight (kg)	Dose (mcg/kg/min)				Infusion Rate
	1.0	1.5	2.0	3.0	
70	0.8	1.2	1.7	2.5	mL/hr
100	1.2	1.8	2.4	3.6	mL/hr

The recovery profile after infusions of NIMBEX Injection to ICU patients is independent of duration of infusion.

Instructions for use:

Diluted NIMBEX Injection is physically and chemically stable for at least 24 hours at 5°C and 25°C at concentrations between 0.1 and 2.0 mg/mL in the following infusion fluids, in either polyvinyl chloride (PVC) or polypropylene containers:

- Sodium Chloride (0.9% w/v) Intravenous Infusion.
- Glucose (5% w/v) Intravenous Infusion.
- Sodium Chloride (0.18% w/v) and Glucose (4% w/v) Intravenous Infusion.
- Sodium Chloride (0.45% w/v) and Glucose (2.5% w/v) Intravenous Infusion.

However, since the product contains no antimicrobial preservative dilution should be carried out immediately prior to use, administration should commence as soon as possible thereafter and any remaining solution should be discarded.

NIMBEX Injection is not chemically stable when diluted with Lactated Ringer's Injection.

Where other drugs are administered through the same indwelling needle or cannula as NIMBEX Injection, it is recommended that each drug be flushed through with an adequate volume of a suitable intravenous fluid, eg, Sodium Chloride Intravenous Infusion 0.9% (w/v).

Since NIMBEX Injection is stable only in acidic solutions it should not be mixed in the same syringe or administered simultaneously through the same needle with alkaline solutions, eg, sodium thiopentone. It is not compatible with ketorolac trometamol or propofol injectable emulsion.

CONTRA-INDICATIONS

NIMBEX Injection is contra-indicated in patients known to be hypersensitive to cisatracurium, atracurium, or benzenesulfonic acid.

SPECIAL WARNINGS AND SPECIAL PRECAUTIONS FOR USE

Great caution should be exercised when administering NIMBEX Injection to patients who have shown allergic hypersensitivity to other neuromuscular blocking agents since cross-reactivity between neuromuscular blocking agents has been reported.

NIMBEX Injection has no clinically significant effect on heart rate and will not counteract the bradycardia produced by many anaesthetic agents or by vagal stimulation during surgery.

Patients with myasthenia gravis and other forms of neuromuscular disease have shown greatly increased sensitivity to non-depolarising blocking agents. An initial dose of not more than 0.02 mg/kg NIMBEX Injection is recommended in these patients.

NIMBEX is hypotonic and must not be administered into the infusion line of a blood transfusion.

INTERACTION WITH OTHER MEDICAMENTS AND OTHER FORMS OF INTERACTION

Increased effect:

Anaesthetics:-

- Volatile agents such as enflurane, isoflurane and halothane.
- Ketamine.
- Other non-depolarising neuromuscular blocking agents.

Other drugs:

- Antibiotics
- Anti-arrhythmic drugs
- Diuretics
- Magnesium salts
- Lithium salts
- Ganglion blocking drugs: trimetaphan, hexamethonium

Decreased effect:

Prior chronic administration of phenytoin or carbamazepine.

Prior administration of suxamethonium has no effect on the duration of neuromuscular block following bolus doses of NIMBEX Injection or on infusion rate requirements.

PREGNANCY AND LACTATION

NIMBEX Injection should be used during pregnancy only if the expected benefit to the mother outweighs any potential risk to the foetus.

It is not known whether cisatracurium or its metabolites are excreted in human milk.

EFFECTS ON ABILITY TO DRIVE AND USE MACHINES

This precaution is not relevant to the use of NIMBEX Injection. However the usual precautions relating to performance of tasks following general anaesthesia still apply.

UNDESIRABLE EFFECTS

No adverse experiences occurred during the clinical development programme that were considered to be reasonably attributable to NIMBEX Injection.

Adverse experiences considered possibly attributable occurred with a frequency of less than 0.5%. These were cutaneous flushing or rash, bradycardia, hypotension and bronchospasm.

SPECIAL PRECAUTIONS FOR STORAGE

Store between 2°C and 8°C.

Protect from light.

Do not freeze.

PACKAGE

For 2mg/mL, 5mg/2.5ml x 5 ampoules and 10mg/5ml x 5 ampoules are available.

For 5mg/mL, 150mg/30ml x 1 vial is available.

Further information is available on request from:

GlaxoWellcome

Glaxo Wellcome Hong Kong (A division of Glaxo Wellcome China Limited)

18/F, Warwick House, TaiKoo Place, 979 King's Road, Quarry Bay, Hong Kong.

Tel : 2565 0524 Fax : 2597 4630