

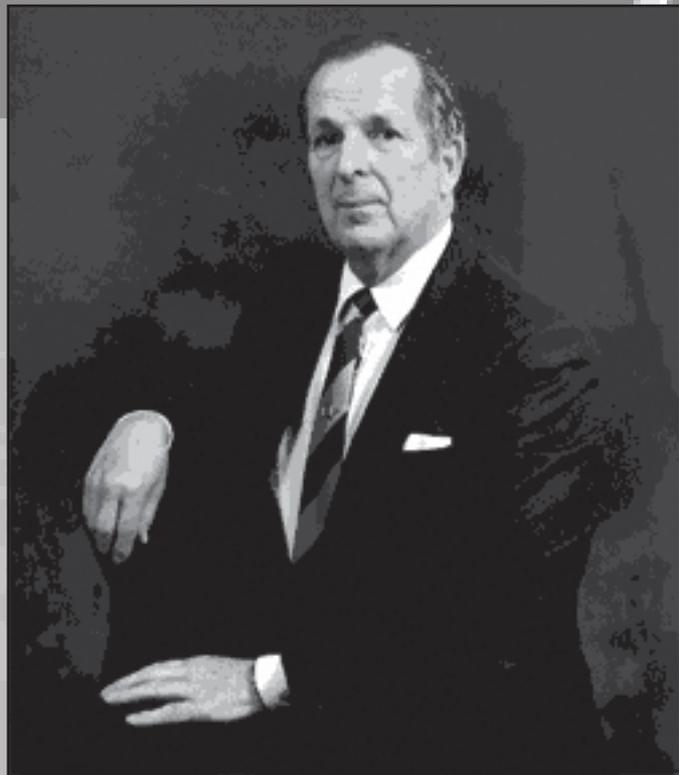
World Anaesthesia

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ASEAN meeting in Manilla



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WORLD
ANAESTHESIA

Announcements

This year, the World Anaesthesia Society (WAS) will again be hosting a study day on anaesthesia in the developing world at the headquarters of the Association of Anaesthetists of Great Britain and Ireland (AAGBI) at Portland Square, London on 16 May 2007. The meeting is being organised by Drs Moyna Bill and Karen Henderson and the theme is "World Anaesthesia: challenges, successes and opportunities."

Further information and applications forms can be found on the AAGBI website (www.aagbi.org)

Between September 12-14, the AAGBI will be holding its Annual Scientific Meeting. This year, it will be held in Dublin. One of the increasingly popular features of the meeting is an art exhibition. This year, one of the categories will be a photographic exhibition with the theme "Anaesthesia in the Developing World." Please consider submitting any photos that you have that illustrate this aspect of our work. Further details can be found on the AAGBI website (www.aagbi.org)

Later this year, the acclaimed Oxford course on Anaesthesia in the Developing World (now in its 26th year) will have a different format. There will be a one day course in Oxford on 6 July 2007 followed by a five day course in Kampala, Uganda between 29 October – 2 November 2007. The latter course will be co-ordinated by Dr Sarah Hodges. Further details can be found on the Oxford Nuffield Department website (www.nda.ox.ac.uk) or by contacting Dr Mike Dobson (michael.dobson@nda.ox.ac.uk)

The 14th World Congress of Anaesthesiologists will be held in Cape Town, South Africa between 2-7 March 2008. The deadline for the submission of abstracts is 01 September 2007. The deadline for an early registration discount is 01 November 2007. Further information can be found at www.WCA2008.com See you there.

YEAR 2008 LAUREATE OF THE HISTORY OF ANESTHESIA

Doris K. Cope, M.D., Chairman www.asahq.org/wlm

Nominations are invited for the person to be named the fourth Wood Library-Museum Laureate of the History of Anesthesia in the year 2008. Deadline for receipt of nominations is July 1, 2007.

This program, established in 1994, has as its purpose increased recognition of the richness and importance of the history of our specialty by recognizing the work of scholars who have made singular contributions to the field. The honor is awarded every four years by the WLM Laureate Committee to an individual who has a demonstrable record of contributing over the years outstanding, original materials related to the history of our specialty as reflected by articles published in peer-reviewed journals, and/or in monographs.

The first Laureate, Dr. Gwenifer Wilson of Sydney, Australia was honored in 1996. The second Co-Laureates were Norman A. Bergman, M.D, F.R.C.A., and Thomas B. Boulton, M.D., Ch.B, F.R.C.A. in 2000. The third Laureate was Donald Caton, M.D. in 2004.

The Laureate Program is international. Nominations are sought by physicians, not just anesthesiologists, as well as medical historians from the international history community.

Additional information may be obtained by contacting the WLM Laureate Committee at the Wood Library-Museum, 520 N. Northwest Highway, Park Ridge, Illinois 60068-2573.

Please visit the WLM website for more details: www.asahq.org/wlm for more information.

Welcome to World Anaesthesia News

Private Anaesthetic Practice in the Developing World

The aim of the WFSA is to promote 'the highest standards of anaesthesia for all peoples of the world'. This is being achieved mainly by the sharing of knowledge and experience between member societies and in particular with those in the less affluent parts of the world.

The education and publications committees have been particularly successful in this regard by disseminating information on subject matter which has been selected by local anaesthetists themselves and therefore the most relevant to their requirements. To remain successful however it is important that the WFSA remains alert to requirements that are constantly changing and re-acts accordingly.

For example, within the last year requests have been received from anaesthetists in both Nairobi and Manila for advice on the organization of private practice. Until now this has been a subject that visiting lecturers have always shied away from as being either irrelevant or inappropriate.

However, private practice exists in even the poorest countries where patients can be found who wish to pay for their treatment and are often prepared to make great sacrifices to do so.

Anaesthetists in the developing world are generally poorly paid. Many are unable to live on their hospital salaries alone and in order to support themselves and their families they have to undertake extra work. This is usually totally outside the hospital environment such as shop keeping or taxi driving. When, therefore, an opportunity arises to anaesthetise a private patient and utilize their special skill and expertise it is naturally very welcome. Extra income derived from private practice may in fact be the one crucial factor enabling them to remain in their native country and continue serving the local community.

Private practice in anaesthesia can, however, be extremely divisive among colleagues in a department, especially if there is not enough to satisfy everyone. Inevitably some anaesthetists will be more successful than others and may be tempted to neglect their duties in an attempt to maximize their income. This can lead to envy

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and resentment between colleagues and cause friction among members of a department. The morale, performance and atmosphere within a department can deteriorate rapidly.

One of the reasons that the specialty of anaesthesia is not perceived as attractive by newly qualified doctor is that it is underpaid and that there is little opportunity for private practice. If however private practice can be organized in such a way that colleagues are seen to be working together to help each other rather than competing against each other the decline in the perception of the specialty can be halted and indeed reversed.

The establishment of private practice groups has transformed the specialty of anaesthesia in some parts of the world and valuable experience has accumulated. The article on page x entitled "Harnessing Private Practice" describes one way in this can be achieved.

Roger J Eltringham

Submissions to World Anaesthesia News may be sent to any of the above.

On Osmosis Hypertonic vs. Isotonic Intravenous Fluid Resuscitation

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Over the past ten years there has been a growing interest in the use of very concentrated (“hypertonic”) Sodium Chloride solution for fluid resuscitation. Besides being very effective in certain conditions, it is also cheap and can be easily prepared: therefore it is potentially very useful when resources are limited.

The aim of this paper is to present it to non-specialists in developing countries: this will also allow me to review some concepts on Osmosis (Part 1), Body fluids (Part 2), Fluids for resuscitation (Part 3) and so, permit a better understanding of this rather unusual therapy (Part 4).

Parts 3 and 4 will appear in the next issue of World Anaesthesia News (editor)

Part 1: Osmosis and Osmolarity

The particles of any substance dissolved in water attract with great force more water to become as diluted as possible.

This very important phenomenon is evident when a given solution is separated from pure water or a less concentrated solution by a membrane which allows the passage of water molecules but not that of dissolved particles (“semi-permeable membrane”): water is forcefully attracted toward the more concentrated solution whose volume will consequently expand until a concentration equilibrium (particles/litre) is reached. This is “osmosis”.

If the vessel containing the concentrated solution does not allow an expansion in volume as water moves into it, the pressure will rise in proportion to the difference in concentration of the two original solutions: this is “osmotic pressure” and it may be very relevant (see below).

Osmosis depends solely on the number of “particles” in the solution and not from their chemical composition or size: since quite often the “particle” in solution is a molecule, one molecule of glucose is as able to attract as much water as a much larger molecule such as albumin. The concentration (number/litre) of osmotically active “particles” in a solution gives the “osmolarity”.

How can one determine the number of particles of a substance in solution?

Obviously we cannot measure their weight or volume, but we know that for any substance, a weight in grams equal to its molecular weight has the same number of molecules as any other substance taken in the same way: e.g. 180 g of glucose (molecular weight 180) have the same number of molecules as 70.000 g of albumin (mol. weight 70.000) or of 46.07 g of ethyl alcohol (mol. weight 46.07) or of urea (mol. weight 60.06); this very useful measuring unit is a mole (mol) and in biology we generally use one thousandth of it, the millimole (mmol).

In considering osmolarity, we know that one mol of any substance – like the four named above - or any fraction of it, has the same number of “particles” as any mol or identical fraction of any other substance when dissolved in water: the osmolarity of one mmol of sugar (0.180g), of alcohol (0.046 g) or of albumin (70 g) or urea (0.060 g) dissolved in 1 litre of water is the same.

With some notable exceptions: the molecules of many substances (electrolytes), when fully dissolved in water, split or “dissociate” into electrically charged ions and these, when discussing osmolarity acquire the role of “particles:”

One mmol of Sodium Chloride (0.058g) when dissociated into two ions (Na+ and Cl-) is worth twice a mmol of sugar or alcohol or albumin or urea; likewise, one mmol of Magnesium Chloride (0.095 g) which splits into three ions (1 Mg++ and 2Cl-) gives three times the Osmolarity of a non-dissociated molecule.

Therefore we will call one osmole (osm) the quantity of substance, which in an aqueous solution, corresponds to one mole of non-dissociated substance or ½ or 1/3 of a mole if the substance dissociate respectively in two or three ions. In all cases, one osmole will have the same number of osmotically active “particles”! Again, in biology, it is more convenient to use one thousandth of this unit, the milliosmole (mosm).

Finally, when we deal with solutions, we have to express the quantity of osmotically active “particles” in relation to a fixed volume of water (1 litre). This is the concentration, (osm/l or mosm/l).

Working with osmols is highly advantageous as it enables the measurement and comparison of the absolute number of osmotically active “particles” in a solution to be made irrespective of their weight or volume or chemical composition, dissociated or not.

The pressure produced by osmosis is called osmotic pressure and it is usually very relevant: one mole of non-ionisable substance such as glucose (180 g) or ½ mole of NaCl (two particles): that is one osmole in 22.4 litres of water exerts the pressure of one atmosphere or about 760 mm of mercury.

The osmotic pressure is measured directly as osmol/l or mosmol/l, i.e. the pressure exerted respectively by one mol or one

millimol of a non-dissociated substance, when completely dissolved in one litre of water, is, respectively, 22.4 and 0.0224 atmospheres and, in mm of mercury, the latter is 17.24 mmHg. One mol of ionisable substance will give two or three times that value depending on the number of ions into which it dissociates.

Part 2: The Body fluids

In biology, osmosis is extremely important: the living organism is made of several fluid compartments (mainly intracellular, circulating and extracellular) with different concentrations of osmotically active particles, separated by semi-permeable biological membranes (notably the capillary blood vessels wall and the cellular membrane) in a very delicate equilibrium. Osmosis regulates many physiological functions and is one of the most important and irresistible driving forces among those acting in the body, shifting water and/or solutes between the compartments.

Moreover, the correct proportion of osmotically active substances in the different compartments of the body is essential for its proper function: it is the "internal environment". This osmotic equilibrium of the body fluids is affected in many pathological states and its correction is often the basis of effective therapy.

It should be remembered that about 57% of an adult's body (and 75 % of a newborn's) is composed of water rich in dissolved particles. Of that more than 60% (about 25 litres) is inside the cells, (the intracellular fluid), separated by a very complex membrane, (the cell wall), from the extracellular fluid which fills different compartments: interstitial, plasma (circulating), cerebrospinal and gastrointestinal. The two main compartments, plasma and interstitial, are separated by the capillary wall; a very effective semi-permeable membrane.

There are also some potential spaces ("the Third Space, that is mainly as an extension of the interstitial space) capable of sequestering very large amounts of liquid in some pathological conditions such as shock, malnutrition or infection.

The osmolarity of human body fluids is a little more than 300 mosm/L (giving an osmotic pressure of about 6.72 atm) although the substances contributing to this in the different compartments are somewhat different. (See Table 1).

Table 1: Approximate composition of Body Fluids

	Plasma mosm/l	Interstitial mosm/l	Intracellular mosm/l
Na+	144	137	10
K+	5	4.7	141
Ca ⁺⁺	2.5	2.4	-
Mg ⁺⁺	1.5	1.4	31
Cl-	107	112.7	4
Bicarbonate ion	27	28.3	10
Phosphate ions	2	2	11
Amino acids	2	2	8
Glucose	5.6	5.6	-
Protein*	1.2	0.2	4
Lactate	1.2	1.7	1.5
Urea	4	4	4
Hexose Monophosphate	-	-	3.5
Phosphocreatine	-	-	14
Adenosine Triphosphate	-	-	3.5
Others	present	present	present
Total	303-304	302-303	302
Corrected Osmolar activity	282.2	280.9	280.9

- At the capillary membrane the osmotic pressure exerted by the proteins, which are inside the vessel and cannot migrate outside, amounts to 28 mmHg, sufficient to equilibrate the hydrostatic pressure and retain the fluids that would escape into the interstitial space: it is called "oncotic pressure", an important fraction of plasma osmotic pressure.

Osmotic and hydrostatic pressure (e.g. pressures inside the blood vessels) regulates a continuous shifting of the liquids between the spaces while complex biological activities regulate the composition of the solutes in them. Normally the intravenous (i.v.) infusion of a solution with osmolarity similar to body fluids ("isotonic" such as normal saline or Ringer's) brings about a prompt uniform redistribution of the fluid between the spaces. Conversely, the i.v. infusion of a concentrated "hypertonic" saline solution produces an almost immediate shift of water from the tissues into the blood vessels and slowly thereafter, a movement of the solutes and water across the membranes to reach a relative equilibrium among the compartments.

Finally, when we infuse into a vein a solution with low osmolarity (e.g. 5% glucose, where the glucose is rapidly metabolised) water will quickly diffuse into the extracellular compartment with resulting oedema.

It is clear that in a clinical context the main determinants of plasma osmolarity are Chloride, Sodium, Glucose and Urea, with the important addition of Ethanol in case of intoxication: a simple formula gives an estimation of plasma Osmolarity:

$$\text{Osmolarity (mosm/l)} = 2 \times \text{Sodium}^* + \text{Glucose} / 18 + \text{Urea} / 2.8 + \text{Ethanol} / 4.6$$

where Sodium is measured as mmol/l, Glucose, Urea and, if present, Ethanol as mg/l.
(*Sodium is taken twice to accommodate also Chloride and other ions)

The essential equilibrium of water and volume in the composition of the different body compartments is maintained, within certain limits, by shifting water, volume and compounds between the compartments according to the laws of osmosis.

A number of pathological or iatrogenic events (from diarrhoea and vomiting

to septic shock, haemorrhage, surgery, inappropriate infusions or sequestration into a "third space") may alter the composition of any of the compartments. The vast majority of acutely ill patients require volume expansion not only because to obvious losses (haemorrhage, dehydration) but also because of hidden losses, mainly exudation of liquids into inflamed areas, body cavities or into the interstitial compartment. The main cause of these latter losses is an increase of the permeability of the endothelial barrier with resultant interstitial oedema. This may result in the sequestration of huge quantities of liquid and impair the function of the affected organ, be it the gut or the lung. Another cause of fluid migration into the interstitial compartment is a low concentration of albumin in the blood (as in severe malnutrition.) The endothelial cells are often affected and may swell, hampering further the circulation and contributing to cellular hypoxia and organ failure.

A reasoned medical intervention with proper infusions (normally intravenous, i.e. into the plasma compartment) will replace lost volume and/or water and/or compounds and help in re-establishing favourable conditions, again taking advantage of the body's ability to shift

fluids between compartments to obtain equilibrium. The methods of fluid replacement are beyond the scope of this article but, it is important to note, that what is called "fluid resuscitation" is often needed even in the absence of obvious losses and may be quite a challenge for the treating physician.

The effect of Perftoran (artificial blood) on haemostasis after emergency operations on the abdomen

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Abnormalities of haemostasis are among the major problems encountered after surgery and in the Intensive Care Unit. Both bleeding and hypercoagulation may be encountered and the incidence of such complications increases with age and the severity of the trauma encountered.

Object and Methods

Twenty four patients undergoing emergency operations for perforation of ulcers in the stomach or duodenum were studied. The average age of the patients was 42 years (+/- 6 yrs). The patients were divided into two groups. In the first (control) group, 12 patients received standard thrombo-prophylaxis to prevent pulmonary thrombo-embolism. In the second group, a further 12 patients received Perftoran 1-2mg/kg. Coagulograms were performed on the first five post-operative days.

The results were analysed statistically using analysis of variation and Student's t test.

Results and Discussion

Analysis of the coagulograms showed a significant difference between the control and

treatment groups. The patients in the control group showed a tendency towards hyper-coagulation while those who received Perftoran had a more rapid return to a normal coagulation profile.

Levels of Factor 10 in the blood are believed to be related to the prothrombin time. If levels of this factor are less than 1%, the prothrombin time (PT) will be greater than 90 seconds; if levels are between 1-2%, the PT will be between 70-90 seconds; with levels between 2-5%, it will be between 40-70 seconds while if it is between 5-10%, the PT falls to between 15-40 seconds. In our analysis, the Prothrombin Time was shorter in the control group thus implying that the Factor 10 levels were higher and that the patients who did not receive Perftoran were at greater risk of thrombo-embolism.

The release of catecholamines result in the activation of prothrombinase, Factor X, which in a complex with Factor V, platelets and Ca^{++} activates prothrombin and transforms it into thrombin. As Perftoran is an energy-preserving preparation, catecholamine levels are reduced and the coagulation cascade is curtailed.

Factor II, prothrombin, is a euglobulin. Under the influence of prothrombinase alpha, beta and gamma, thrombins are formed. Alpha-thrombin precipitates coagulation in the presence of

fibrinogen, but it is quickly neutralized by antithrombin III. Conversely, beta-thrombin is resistant to heparin and antithrombin III. Gamma-thrombin has no coagulation activity, but has specific enzymatic and fibrinolytic activity.

Factor II is synthesized in the liver in the presence of vitamin K. Raised levels of a factor II are associated with the development of hyper-prothrombinaemia. High concentrations of Factor III are found in the intestine. Following abdominal trauma, there is an increase in the concentration of thromboplastin which aids local haemostasis. Following contact with plasma Factors VIIa and IV, it activates Factor X (the external coagulation chain).

In our analysis, the group receiving Perftoran had lower levels of prothrombin and thus, their risk of thrombo-embolic complications was lower.

Factor IV, calcium ions, are necessary for the activation of prothrombinase and the transformation of prothrombin to thrombin which, in turn, is necessary for the change of fibrinogen into fibrin. In healthy people, the concentration of Factor IV varies between 0.8 and 1.75 mmol/l. Calcium is capable of binding to Heparin, thus decreasing the time that blood takes to coagulate. This is not the case when Perftoran has been

administered and thus, the risk of clotting is reduced.

Fibrinogen, Factor I, is a glycoprotein with molecular weight about 340,000 D and is produced in the liver. In the presence of thrombin, fibrinogen is changed into fibrin, the main insoluble substance of a clot. If there is an increase in the concentration of fibrinogen, the viscosity of blood sharply increases. If thrombin is also present, the fibrinogen monomer is changed into the fibrin dimer and an insoluble clot is formed.

We found an increased concentration of fibrinogen in the control group and this may have been associated with a greater tendency to hypoxaemia in that group as that is known to cause hyper-fibrinogenaemia. This was much less in the group receiving Perftoran.

Conclusions

1. Patients receiving Perftoran showed less evidence of hypoxaemia and this may well have reduced the incidence of the coagulation cascade being initiated.
2. Perftoran produced an improvement in the microcirculation and reduced the tendency towards hyper-coagulation after surgery. Hence, Perftoran may well find a useful role in reducing the incidence of post-operative thrombo-embolism.

Coagulogram results of control group

Investigation	Normal values	Days post-operative				
		1	2	3	4	5
Prothrombin time (sec)	12 – 20	13.6± 1.6	14.2± 1.5	18.0± 1.7	20.0± 1.9	2.0± 2.0
Prothrombin index (%)	90 – 100	95 ± 4.9	86± 5.9	84± 6.9	78±5.8*	76±9*
Time recalcification (sec)	60 - 120	96± 10.2	120± 9.8	120± 6.6	125± 4.3*	128± 2.2*
Fibrinogen (g/l)	2 - 4	3.99± 0.4	3.97±0.3	3.96±0.3	3.8±0.3	3.59±0.2
Thrombotest (units)	4 - 5	5± 0.9	4.5± 0.5	4.5 ± 0.5	4.5± 0.5	4.5± 0.5
Haematocrit (%)	36- 42	42+ 4	41+4	43+4	43+4	39+3
Platelets (g /l)	150 -350	253+39	262+29	253+30	244+32	242+22

Footnote * - P < 0,05

Coagulogram results of patients receiving Perfitoran

Investigation	Normal values	Days post-operative				
		1	2	3	4	5
Prothrombin time (sec)	12 – 20	19± 1.9	20± 1.8	23± 1.9*	26± 2.2*	28± 2.2*
Prothrombin index (%)	90 – 100	95 ± 3.8	72± 4.2*	84± 4.3	74±4.1*	78±4.1*
Time recalcification (sec)	60 - 120	96± 9.6	120± 1.8	124± 1.4*	128± 1.4*	132± 1.3*
Fibrinogen (g/l)	2 - 4	3.8± 0.39	3.8±0.31	3.6±0.28*	3.5±0.19	3.5±0.13
Thrombotest (units)	4 - 5	5.0± 0.9	4.5± 0.5	4.0 ± 0.4	4.0± 0.4	4.0± 0.4
Haematocrit (%)	36- 42	42+ 4	41+4	43+4	39+3*	39+3
Platelets (g /l)	150 -350	252+38	261+28	252+29	243+31	245+21

Footnote * - P < 0,05

Donate Your Journals

Many doctors and departments of anaesthesia in developing countries cannot afford to subscribe to current anaesthetic journals. We, in the affluent West, tend to throw our journals away after we have read them.

It would be of great benefit to anaesthetists in developing countries if western anaesthetists collected a few of their journals and then sent them by surface mail to a recipient in a developing country: I send mine to a department in India. The cost is on a par with that of a bottle of cheap supermarket wine!!

If you are interested in participating in this scheme, contact either Carol Wilson at worldanaesthesia@mac.com or Roger Eltringham at rogereltringham@biinternet.com

Your effort will be much appreciated by the recipients.

Lessons learnt from two years experience using the Glostavent Anaesthetic Machine in theatre and the Intensive Care Unit, Blantyre, Malawi

Kenneth Kapatuka, Clinical Officer Anaesthetist, Queen Elizabeth Central Hospital, Blantyre Malawi

Introduction

In August 2003, with funding from the Dutch Government, three Glostavent Anaesthetic Machines were introduced to the Queen Elizabeth Central Hospital, Blantyre, a major referral and teaching hospital situated in the southern part of Malawi. Since then, they have been in constant use, both as anaesthetic machines in the operating room and as ventilators in the intensive care unit.

In their first 2 years of use, over 10,000 patients were anaesthetised for surgery using the Glostavent. Of these 2,200 were children and 8,002 were adults. In the intensive care unit over 600 patients were ventilated using Glostavents, which were transferred from the operating theatre whenever dedicated I.C.U. ventilators were not functional. Our experience with the Glostavent has been extremely favorable and they have become popular with all members of staff.

Advantages and Disadvantages of the Glostavent

After 2 years experience with the Glostavent, anaesthetists in our department were asked to assess the impact of the Glostavents on their practice. Their replies are summarised as follows:

Advantages

Simplicity: Trainee anaesthetists found its simple design made the Glostavent easy to understand and to use.

Reliability: We have found that the Glostavent is more robust and less prone to malfunction than other types of ventilator. As a result of the training course provided by a visiting medical engineer. in 2004, hospital engineers acquired the skill and confidence to enable them to maintain and service Glostavents to a high standard locally.

Versatility: The Glostavent was used both as a ventilator in the ICU and as an anaesthetic machine in the operating room. When 3 of the 4 existing ventilators in the intensive care unit failed simultaneously, Glostavents were transferred from the operating room enabling patients with a variety of illnesses to be ventilated for prolonged periods of time.

Financial savings: Since we have very limited access to pressurized air and oxygen, our choice of ventilator is limited by the requirement that it must run using an oxygen from an

oxygen concentrator. Prior to this, the ICU used an average of 35 large oxygen cylinders per month. Since the advent of the Glostavents, this has fallen to 10 cylinders per month. At a cost of £25 per cylinder, this represents a saving of £625 per month. The ability of the engineering department to service Glostavents locally, has not only significantly reduced the time they are out of action, but has also enabled further savings to be made.

Disadvantages

The anaesthetic staff listed the following disadvantages. These were referred to the manufacturers Diamedica and their responses are recorded below.

The perception of lung compliance during hand ventilation is less easy than when using a conventional reservoir bag.

Manufacturers comment: This is inevitable with draw-over anaesthesia, as a self-



inflating bag with its more rigid structure is a fundamental part of the system.

The FI_{O_2} during pre-oxygenation is suboptimal and may be as low as 40%.

Manufacturers comment: Pre-oxygenation is generally accompanied by a degree of hyperventilation. The greater the hyperventilation, the greater the volume of air entrained through the open end of the reservoir tube, diluting the oxygen. Several methods of increasing the FI_{O_2} during pre-oxygenation via a draw over system have been described. These include increasing the volume of the reservoir tube, increasing the flow of supplementary oxygen and connecting a large pre-prepared bag of oxygen to the open end of the reservoir tube. The latest model of the Glostavent incorporates an improved draw over system, which has been specifically designed to increase the FI_{O_2} .

During use with paediatric patients, the open end of the reservoir tube is closed with a cap to convert the system for continuous flow. If the cap is inadvertently left in place when the next adult patient is anaesthetised, inspiration is impossible.

Manufacturer's comments: As with any piece of anaesthetic apparatus, simple tests of function must be carried out before use. These are specifically designed so as to make this kind of error impossible.

There are no alternative modes of ventilation for weaning long-term ventilated patients. In practice, we wean from full ventilation using the Glostavent by intermittently giving the patient trials of self ventilation on a T-piece

Manufacturers comment: The Glostavent has been designed to be as simple as possible, avoiding the sophisticated technology required in weaning modes. Although it is not designed primarily as an intensive care ventilator, it provides extremely effective and economical long-term ventilation. For this reason, the period needed for weaning may be extended. The weaning can usually be accomplished with minimal inconvenience, by gradual reduction of the respiratory rate interspersed with periods of manual ventilation.

The Glostavent cannot be used as a mechanical ventilator in children under 25kg (manufacturer's recommendation), although anecdotally we have used it to ventilate a head-injured child of 13kg.

Manufacturers comment: The Glostavent can be used for patients of all ages, even the smallest children. The resistance of a draw over circuit becomes increasingly significant in smaller children when breathing spontaneously (this is not relevant when I.P.P.V. is being used). However, this problem is easily overcome by converting to continuous flow mode. The open end of the reservoir tube is occluded with the bung provided and the

draw over circuit replaced by a standard paediatric circuit (Mapleson F). It can then be used for children of any size.

Water can accumulate in the driving gas tubing between the concentrator and the ventilator.

Manufacturers comment: This is inevitable to some degree when compressed air is used. The condensed water can readily be cleared by disconnecting the tubing and blowing air from the concentrator through the tubing. This should be done every six months as part of the maintenance schedule. The new model of the Glostavent will be fitted with an automatic drier, to eliminate this characteristic.

There is no built in oxygen analyser.

Manufacturers comment: Although an oxygen analyser may be desirable, it is not essential in a drawover system since it is impossible to administer a hypoxic mixture. This is because room air is entrained, to which oxygen is added so the resulting oxygen percentage will increase and not decrease. It is impossible to deliver a hypoxic concentration (less than 21% oxygen).

Conclusion

Since Malawi is one of the poorest countries in the world, any new

equipment must be carefully selected to give maximum value for the limited resources available. Furthermore it should be reliable, since anaesthetists in Malawi are frequently working in isolated hospitals with little possibility of outside help.

The Glostavent has proved to be very popular among anaesthetic personnel in Malawi, on account of its simplicity, reliability and economy. The demand for the Glostavent has far exceeded supply and frequently operating theatres have had to be closed and operations cancelled when Glostavents have been transferred from the operating room to provide long term ventilation in the intensive care unit.

There are now 13 Glostavents in Malawi (table I) and there have been no reports of its malfunction in over 2 years of use.

It is hoped that further Glostavents can be purchased and that refresher courses in its use, servicing and maintenance can be repeated at regular intervals as a means of increasing the safety and efficiency of the country's anaesthetic service.

Thanks are expressed to the Dutch Exit Strategy, the European Union and the British High Commission for enabling the people of Malawi to benefit from this new type of anaesthetic machine.

Table 1: Distribution of Glostavents in Malawi

Hospital	Number of Glostavents
Queen Elizabeth Central Hospital	4
Thyolo District Hospital	3
Chiradzulu District Hospital	2
Mangochi District Hospital	1
Nkhotakota District Hospital	1
Nkhoma Mission Hospital	1
Ekwendeni Mission Hospital	1
Mlambe Mission Hospital	1
TOTAL	13

Multidisciplinary pain management: exploring the needs at home and abroad

Dr Brigitta Brandner, SPIN member and Consultant Anaesthetist with an interest in Pain

Dr John Lee, SPIN member and Consultant in Pain Medicine, University College London Hospitals

Contact: john.lee@uclh.nhs.uk

In November 2006, the Specialist in Pain International Network group ('SPIN') went to Mumbai (Bombay), India. SPIN is a group of like-minded pain clinicians, psychologists, nurses and physiotherapists from around the UK who visit colleagues abroad to share in cross-cultural experiences by providing expertise, education, seminars and workshops to interested parties all over the world.

The idea to visit Mumbai followed a chance meeting with the then president of the Indian Chapter of the International Association for the Study of Pain's (IASP), Dr D K Baheti. This was followed up at the three yearly meeting of the IASP held in Sydney 2004 where Dr Baheti, now the secretary of the Global Update on Pain III meeting in Mumbai 2006, met with Dr Sam Chong. Sam is a neurologist and also a founding member of SPIN and he organised the meeting from the UK side with Dr Andrew Baranowski, another founding SPIN member. Andrew was able to arrange to link this meeting with the Royal Society of Medicine (RSM). Despite uncertainties until just before the event, the details of this large

meeting worked exceptionally well. This is the first time in the history of pain in India that a meeting has been organised with two international academic societies (SPIN and the RSM).

The local team registered 270 delegates from India, with international speakers from the UK, USA and Canada. The programme was very varied, ranging from cadaver workshops, teaching how to provide invasive blocks, to interactive group meetings with physiotherapists and psychologists and discussions on the latest techniques in cognitive behavioural therapy for pain management. Each evening, there was a range of different entertainment with modern and traditional dancing all accompanied by wonderful South Asian cuisine. The SPIN group arrived a couple of days before the event to recover from jet lag and were able to see the sights and do a bit of shopping before the main meeting. This was also an opportunity to check out the venue and make final preparations (loading talks and checking the compatibility of software). This was the third successful meeting organized by the Pain Management and Research Foundation of India.

SPIN is proud to have visited Romania, Poland, Italy and India to date. SPIN members pay for their own travel to get to the countries they visit and this reduces the costs for the hosts. SPIN has occasionally been sponsored by donations from

the pharmaceutical companies such as Pfizer and Napp. SPIN raises money to support their activity by writing books and giving talks in the UK. The host countries often kindly provide food, accommodation and fun. The group itself is an eclectic mixture of clinicians from many different parts of the UK. There are twelve pain doctors (some with acute and some with chronic pain interests), two neurologists, one physiotherapist, two nurses and two psychologists. It endeavours to provide a rounded view of pain medicine, and in many countries, this involves stressing how important the biopsychosocial aspects of pain are to patient management. The multi-professional team is the key to good patient care and SPIN is changing the nature of their presentations to try to emphasise this aspect of pain management. In many ways, the best treatments for long term pain are provided by 'manpower' resources rather than technical and expensive equipment, something that often causes problems when specialists go abroad to provide an educational platform and advice.

SPIN is planning a trip to the Bosnia in 2007 and hopes to go to Sri Lanka in 2009. There is no meeting in 2008 because of the IASP's international meeting which is being held in Glasgow.

For further information, contact Dr John Lee at john.lee@uclh.nhs.uk

Time in the Ecuador Oriente

Dr Gillian Davies
GD407@btinternet.com

I have been privileged to spend 4 months (January–April 2005) working in the Clinica Misional Nuestra Senora de Guadalupe, situated in a remote valley of the Rio Yacuambi in the jungle highland area of Ecuador. The area was first settled in 1960 and was then accessible only by canoe: now it is on a bus route. Guadalupe is a small settlement with basic amenities and a young population. It has a Catholic mission where Padre Jorge Nigsch has worked for the last 13 years. He wanted to provide a basic medical service to the poor deprived people in this area and initiated a small out-patient clinic.

This grew and in, November 2001, a comprehensive purpose-built facility was opened. It consists of an operating theatre, associated rooms, a recovery area, a pharmacy, and laboratory, but without blood transfusion facilities, and a dental department. All the equipment and drugs are donated. The staff are all volunteers from Europe and the US who spend 2–52 weeks working in the clinic that now serves a scattered population of 30,000. They are helped by 4 local girls with no formal medical training and a permanent clinic nurse who organizes everything,

During my time at the clinic we had 3 visiting surgeons (ophthalmic, general and ENT) who each stayed a minimum of 2 weeks. However, complete teams including a theatre technician

and /or scrub nurse and a post-operative nurse would be ideal for efficient, safe surgery. A fee of US\$10 is charged per operation. Teams need to bring most of their equipment and drugs including all anaesthetics for the procedures they plan to undertake.

The Operating Room has been described as “an oasis of clean modern facilities in a remote location surrounded by poverty” and is a tiled spacious room but without windows. It has an operating table, theatre light, suction, large heavy oxygen cylinders, a tilting trolley, ECG machine, defibrillator, diathermy and an instrument trolley.

Some basic surgical instruments are present but it is necessary for visiting teams to bring specialist instruments as well as disposable gown packs, sterile drapes, gloves etc.

The anaesthetic equipment consists of a donated Narkomed Compact North American Drager with a recently repaired ventilator, soda lime and isoflurane and enflurane vaporisers. Oxygen is only available from cylinders; there is no nitrous oxide or compressed air. There is also an automatic BP machine and ECG, a suction machine and an oximeter as well as a poor selection of endotracheal tubes but other equipment such as laryngeal masks, T-piece circuits and IV cannulae had to be brought in.

The Recovery area was a large room with 7 beds. It currently has no oxygen, suction machine, monitors or resuscitation

equipment. I have recommended that these and an oxygen concentrator be purchased.

Volunteers must bring all drugs they intend to use, since those in the clinic have been left by others and may be out of date. Ketamine and some local anaesthetics were available but drugs for resuscitation were not. The last expatriate anaesthetist brought propofol (and an automatic syringe driver) rocuronium, fentanyl, pethidine, diclofenac, midazolam, spinal bupivacaine, lidocaine, ephedrine, atropine, and neostigmine. The clinic only buys in normal saline for intravenous use. Halothane is available in Ecuador and, perhaps surprisingly, sevoflurane.

Whilst I was there, seventy operations for pterygium were performed as well as thirty cataract extractions with intra-ocular lens implantation using local anaesthetic drops and retrobulbar block given by the surgeon. No sedation or monitoring was used.

Given the current facilities, the only general surgery performed was hernia repair in fit adult patients. Four operations were performed most days using either a bupivacaine spinal for inguinal hernias or a general anaesthetic consisting of a propofol drip with laryngeal mask or endotracheal intubation using rocuronium and IPPV for epigastric, umbilical or incisional hernias.

Up to five nose and ear procedures a day were performed on adults using local anaesthesia with diazepam and ketamine.

Patient stayed overnight after hernia surgery. A local nurse was employed to look after recovering patients. She gave antibiotics and analgesics and recorded vital signs. Relatives also stayed to help providing personal care and food.

It is not the intention of the clinic to provide surgery that required a prolonged inpatient stay but to offer day case

facilities. There was no home care as patients come long distances by bus, horse, canoe or on foot and patient selection had to be appropriate to the prevailing conditions.

I should like to thank Padre Jorge for giving me the opportunity to work in this caring environment, an oasis of medical care in the jungle, for the poor of the Ecuadorian Oriente. I would like

to see the surgical facilities at the clinic being further developed and used. It is an ideal place for organizations such as Rotary to send specialist teams to work in Plastic surgery, Orthopaedics, Gynaecology, and Urology in addition to those described. Those interested please contact Padre Jorge nigsch57@easynet.net.ec

Welcome to Medapteq

Patricia Coyle
www.usyd.edu.au/medapteq

The aim of the Medapteq Database is to provide information on a range of aspects of medical practice in areas of limited or unreliable resources and infrastructure such as remote or developing regions of the world. We hope it is relevant both for people working in these areas and other interested parties such as those considering the donation of equipment (new or recycled).

There are several excellent programmes providing guidance for the planning, establishment and ongoing maintenance of healthcare facilities. The Institution of Engineering and Technology has a resource dealing with appropriate healthcare technology. There are also very useful donation guidelines such as those provided by the World Health Organisation (WHO), World Federation of Societies of Anesthesiologists

(WFSA), FAKT, and American College of Clinical Engineering (ACCE). Medapteq is not intended to compete with these programmes, nor is it an extension of them. It is rather an application, in a readily accessible form, of the principles embodied in them. It is important that people considering the use of information from these pages read our disclaimer notice.

The equipment section lists both commercial materials (usually with a link to a web site) and selected Do-It-Yourself items (DIYs) or improvisations. Where possible, the improvisations include a reference to articles in existing publications or a contact person is identified. It must always be remembered that these DIYs are NOT modifications of commercial equipment. Modifications in the sense of altering elements of a manufactured item are, ideally, rarely if ever done and we do not condone this. They can be the occasion for serious errors and mishaps. In

addition, modifications made after purchase would, in most if not all cases, render void any service contract. If modification of a manufactured item is considered unavoidable in particular circumstances it should be done by or with the assistance of a qualified engineer or technician. Any such modifications must be fully and clearly documented and adequately labeled on the item so that the changes are unmistakable. Use of the modified equipment should be restricted to one person, or to a limited number of persons, fully cognisant of the changes and their significance.

The Wish List is essentially an open invitation to 'inventors' including tertiary students from areas such as engineering. It will likely include items which have existed in the commercial sphere but are no longer available.

Comments are invited, as are suggestions regarding possible additions.

Education Committee Report 2006

Every year I write that it has been a busy year for the committee. How else can one describe all the efforts of the committee members and the other anesthesiologists who consistently assist us to achieve our goal of improving anesthesia education world wide?

It is a challenge to constantly improve what we do and to anticipate the changing needs of our colleagues in less well off countries. We are very grateful to those individual anesthesiologists, groups, universities, hospitals, societies, organizations and members of industry who work with us to develop, maintain and improve our programmes. There are donations of time, expertise, money, books, accommodation and more which facilitate all of our activities. To everyone who has contributed, we are immensely grateful.

Committee membership remains the same as last year.

Dr Angela Enright (Chair)	Canada	2000
Dr Bill Casey	UK	2000
Dr Yew Weng Chan	Singapore	2004
Dr Martin Chobli	Benin	2000
Dr Zeev Goldik	Israel	2005
Dr Pedro Ibarra	Colombia	2004
Dr Yehia Khater	Egypt	2004
Dr Rob McDougall	Australia	2000
Dr Jannicke Mellin-Olsen	Norway	2004

The focus during 2006 was on our training programmes.

Training Centres:
General Anesthesia:

Bangkok: BARTC: Head of Programme: Prof Thara Tritrakarn

This programme continues on with four trainees per annum. Three of the four trainees for 2006 were from Mongolia. The fourth was from Lao PDR. In 2007, 2 are from Mongolia, 1 from Cambodia and 1 from Vietnam.

Trainees spend their first 8 months in a participating university hospital to improve their basic knowledge and clinical



DChimedbazar A Sovuth, K Tumendemberel N Ngoc Tuyen Prof Wana, Prof Thara, Prof Orawan



MMaung Swe E Altaikhuu BKhaikhamphithoune Prof Thara E Dorjpalam, M Banza

skills. Then they rotate to two provincial hospitals where the practice is closer to how the trainee will work at home. With less competition for cases with Thai residents and students, they have the opportunity to do more and their skills quickly improve. Trainees of the 2006 class highly praised the provincial hospital experience. Because of this the rotation has been lengthened for the 2007 class. Trainees may request to spend more time in particular areas of interest during their rotation in the university hospital. Some from the children's hospital in Mongolia rotated to the National Children's Hospital for 2 to 6 weeks and felt that it was very beneficial for them.

The committee is often asked how we evaluate the effectiveness of our programmes.

Here is a summary of the graduates from the BARTC programme. Res ipsa loquitur.

Mongolia:

For a few years now the focus has been on developing a critical mass of trained anesthesiologists for Mongolia. This

approach has been very successful as now there are sufficient BARTC graduates in Mongolia to begin to effect change. They have introduced many new techniques to Mongolia e.g. spinal and regional anesthesia in children. The safety of anesthesia has been emphasized and reinforced. They have strengthened and unified anesthesia training in Mongolia. The training duration is going to increase from 1 1/2 year to 3 years. They have organized training courses for doctors and nurses. They have setup a pain clinic in Mongolia. Dr Shagda Enkhtuvshin, the first Mongolian BARTC graduate and the head of the team has received the best doctor of the year award for 3 consecutive years.

The faculty of the BARTC programme, along with the WFSA President, Dr Meursing, visited Ulaanbaatar (UB) in July. The scientific programme was organized by the local faculty, most of whom were BARTC graduates. There were 104 participants – 5 anesthesia residents, 45 anesthesiologists, 3 surgeons, and 51 anesthesia and intensive care nurses. 20 of these attendees were from outside Ulaanbaatar. Not alone was there a refresher course but the visiting team went to 5 hospitals in UB and 1 regional hospital.

Medals of Honour were awarded to Dr Meursing and Prof Thara by the Minister of Health. The Chinggis Khan medal was also awarded to Prof Thara for his devotion to helping Mongolian anesthesiologists. I think this speaks volumes for the success of the training programme. We are now looking at further development for Mongolian anesthesiologists. We have also been supporting an Australian anesthesiologist, David Pescod, who has been going to Mongolia to teach for several years. He has written a textbook for them which is currently being translated into Mongolian. There is no textbook of anesthesia in the Mongolian language. David and an obstetric

anesthesia colleague spent weeks there teaching in 2006. They are also supported by the Australian Society. PTC has also been involved in Mongolia. With the BARTC centre, when Mongolia is well established, they can turn their attention to another of the needy countries in their area.

Laos PDR:

There are 12 Laotian graduates from BARTC. Four of them work in provincial hospitals in Laos and 7 work in teaching hospitals in Vientiane. They are an important teaching team in anesthesia in Laos. Dr Traychit Chantasiri, a graduate from the first class, received a scholarship to continue his training in Luxemburg.

Cambodia:

Seven graduates from BARTC work in teaching hospitals in Phnom Penh and 2 in provincial hospitals. They are involved in anesthesia activities in their country. They help in organizing the annual Cambodian national anesthesia meeting.

Vietnam:

There are three trainees from BARTC, 1 is working in a teaching hospital in Hanoi. He is active and was an important force in organizing the 12th Asean Congress of Anesthesiologists in Vietnam. Another is working in a private hospital in Ho Chi Minh City. The third emigrated to Australia in 2004

Myanmar:

All 3 graduates work in teaching in Yangon General Hospital. They are a major teaching force in Myanmar. Dr Soe Nyunt persuaded BARTC to hold the First WFSA-BARTC refresher course in Myanmar on February 1, 2007

Bhutan:

There are 2 trainees from Bhutan. One works in Thimphu, the capital of Bhutan. Another works in a provincial hospital in the eastern part of Bhutan. They are the only 2 Bhutanese anesthesiologists in the country. Bhutan has no medical school and no specialist training.

Cluj-Napoca: Head of Programme: Prof Iurie Acalovschi



Dr Berdeaga Leonid, Dr Vetrila Victoria, Prof Iurie Acalovschi, Dr Cusnir Olga, Dr Dragoi Lilian and Dr Tovita Aurel.

This centre has been growing steadily since its inception in 2002. It has focused on the training of anesthesiologists from Moldova. The centre is supported by the WFSA and the European Society of Anaesthesiologists NASC Committee.

This allows for the training of 9 young anesthesiologists per year for 6 months each. Because the language of Moldova is Romanian, the trainees integrate very rapidly into the system. They rotate through areas in anesthesia and also in ICU. They learn many new procedures and have an opportunity to practice them. They attend all teaching rounds and do presentations. They also have the opportunity to attend scientific meetings such as the National Congress of the Romanian Society and also FEEA courses.

Beer Sheva: Head of Programme: Dr Gabriel Gurman

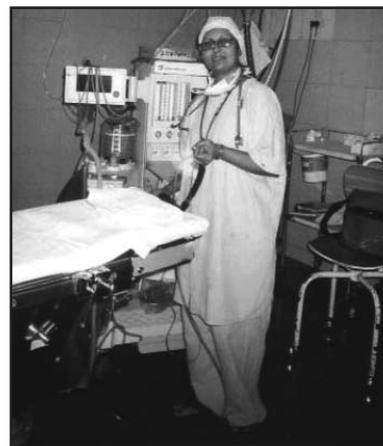
This project began in 1992 with two trainees from Romania. It has grown much in size and significance since then, having now trained 153 young anesthesiologists mostly from Eastern Europe but also including 7 from Kenya. Dr Gurman has now retired from active practice. Together we have reviewed the programme and obtained input from our Eastern European colleagues. As a result we have decided to terminate the programme in Beer Sheva and introduce a new programme which I will describe later. We are very grateful for the support of the administration, faculty

and staff of Ben Gurion University of the Negev and of Beer Sheva Medical Centre. They have contributed enormously to anesthesia education in Eastern Europe. Prof Gurman continues to assist us in setting up the new programme and in many other ways. His work has been invaluable and he deserves enormous thanks for his efforts and commitment.

Subspecialty Training Programmes: Pediatrics:

Santiago, Chile: Head of Programme: Dr Silvana Cavallieri

This was our first programme in pediatric anesthesia. It has now trained 13 pediatric anesthesiologists for Central and South America. These include 3 from Bolivia, 3 from Paraguay, 2 from Ecuador, 2 from Honduras and 1 each from Guatemala, Venezuela and Peru. It is very highly regarded by everyone. Most trainees attend for 6 months but in the recent past we have had several stay for one year. Dr Cavallieri has also trained one pediatric cardiac anesthesiologist for Venezuela. A Fellow from Paraguay is training at the moment. She is supported by the Canadian Anesthesiologists' Society. The next fellow will come from Peru.



This programme began in 2005 with a trainee from Bellary, India. He was supported by the Canadian Anesthesiologists' Society. He returned home and has been practising successfully since then. The second Fellow, Dr Manisha

Paul, seen here in the picture, was from Bangladesh and was supported by the Society for Pediatric Anesthesia. She did very well and has returned home where she will practise in a new pediatric hospital. She wrote that she learnt more in her six months in Vellore than she had in the previous five years. Our current trainee is from Afghanistan, our first Fellow from that country.

Cape Town, South Africa: Head of Programme: Dr Adrian Bosenberg

This programme also began in 2005. The first Fellow was from Nairobi, Kenya. Dr Zipporah Gathuya has returned home after what has to be described as a fantastically successful programme. In her year in Cape Town, Zippy performed over 1000 pediatric anesthetics. She sent me a wonderful report of her year with suggestions for improvement. Besides the clinical activity, she was exposed to research and to many educational activities. She achieved her first publication and poster presentation and was an invited speaker at the 2006 Pediatric Anesthesia Congress for South Africa. Her Fellowship was underwritten by the Drager company to whom we are very grateful.

Our second Fellow in this programme began in January 2007. He is from Mbarara in Uganda.

Tunis, Tunisia: Head of Programme: Dr Mohamed Ben Amar

This programme continues to train young anesthesiologists from French speaking Africa.

Funding is provided by the Drager Company. Over the past few years, Dr Ben Ammar has hosted trainees from Niger, Senegal, Ivory Coast, Rwanda, Cameroon and Mali.

Obstetric Anesthesia:

Medellin, Colombia: Head of Programme: Dr Mauricio Vasco

This is a new programme hosted by the



Universidad Pontificia Bolivariana. It offers 3 months of training in obstetric anesthesia to young anesthesiologists from South and Central America. The first Fellow was Dr Beatriz Contreras from Venezuela. She is an enthusiastic anesthesiologist from Merida, Venezuela and is one of the faculty at Universidad de los Andes (Merida's public University). She was fully supported by the Canadian Anesthesiologists' Society. The Colombian Society of Anesthesiologists is providing health insurance for the trainees. Dr Luis Sebriano from Paraguay will commence his training in February.

**New Training Centres
Subspecialty Training:**

Wolfson Medical Centre, Holon, Israel: Head of Programme: Dr Tiberiu Ezri

Starting in January 2007, 5 six month subspecialty Fellowships per year will be offered at Wolfson. There will be one position per country per year. The starting countries will be

Bulgaria, Kenya, Moldova, Serbia and Slovakia. Choices of subspecialty will include cardiac, obstetric and pediatric anesthesia, pain management and intensive care. The national societies have been asked to nominate young anesthesiologists for the programme. The first Fellow in this programme is from Serbia. She has chosen Intensive care as her field. She will be joined by a Fellow from Kenya who will study pediatric anesthesia.

Intensive Care:

Vellore, India: Head of Programme: Dr. Nagamani Sen

With assistance from Dr Rebecca Jacob, I have been working with Dr Sen (at left) to establish a Fellowship programme for ICU at Vellore. Christian Medical College in Vellore has been wonderful in facilitating these fellowships.

The first Fellow is already in place. He is from Dr Ravi Ram Shrestha from Nepal. The training is for one year but could be extended to two.



Obstetric Anesthesia:

Johannesburg, South Africa: Head of Programme: Dr Phillipa Penfold

We are still working on finalizing this project and hopefully it will come to fruition in 2007. We have cleared the first hurdles. However there still remain several obstacles to getting the project underway. Training in obstetric anesthesia is sorely needed in Africa.

New Developments

We have embarked on two trial projects this year. Educating teachers of anesthesia and the organization and training of residents are of paramount importance in improving anesthesia programmes throughout the world.

Philippines: Programme Leader: Dr Florian Nuevo "Improving the Training Program in Anesthesia"

This intensive two day course was organized completely by the AARS but supported financially by the Education Committee. It was held in Manila

with teachers from the UK, Australia, Philippines and USA. The aim of this workshop was to examine ways in which training programs in anesthesia can be improved with a particular focus on curriculum planning, assessment and fostering professionalism. There were between 50 and 60 participants, representing nearly all of the 42 training programs in the Philippines.

There were 4 main sessions: components of a good training program, devising the curriculum, assessment of trainees and clinical supervision and remediation. Other topics included practical implementation of the ACGME outcomes project in residency training and teaching tips.



Small group work



Participant with Drs B Mets, R Eltringham, M Odi R McDougall, G Herbosa & F Nuevo

The sessions on curriculum and assessment included small group activities in which each group was asked to plan a curriculum for a component of an anesthesia training program and then blueprint an assessment for the component and write sample questions. Each of the groups presented their projects on the morning of the second day.

It is clear that there is demand for such workshops. This was the first conducted by the AARS and although there were some issues with planning and delivery, there is now a strong team of enthusiastic instructors and a solid curriculum pitched at the right level. A properly planned, stand alone workshop is probably the next step.



Bratislava Group 2006

Eastern Europe: Programme Leaders: Dr G Gurman/Dr M Dobson "Teach the Teachers":

This is a trial programme dedicated to introducing young anesthesiologists from Eastern Europe to modern teaching methods as well as an update in anesthesia. Twenty anesthesiologists were chosen by their national societies to attend. There were 4 each from Bulgaria, Poland, Moldova, Serbia and Slovakia. The teachers in the first course were from the UK, Switzerland, Slovakia and Israel and included two pedagogic experts.

All gathered in Bratislava, Slovakia for a full five days of interaction. The emphasis was on introducing the participants to new teaching methods and to giving them opportunities to practice what they learned.

Following the course a written survey of all the participants, both teachers and students, was conducted. The feedback was very positive although, as with any new project, there were some problems. Criticisms related to not having enough time to prepare presentations and to the intensity of the course. The working language of the course was English. For many of the participants this is their

second or third language so it was very fatiguing. All appreciated the introduction to new and different teaching methods. A positive spin-off which had not been considered was the great international connections developed between the participants. They all wrote about how important that was.

This course will continue with two more sessions, one in the spring of 2007 and one in the fall. These are designed to further develop their teaching skills and to consolidate what they have learned. Each participant has some teaching projects to prepare and carry out at home before arrival. By the third course, they will be doing almost all the teaching and the teachers will be assisting and evaluating them. The idea is that these young people will be teachers in their own countries and will bring home their new found skills and share them with others. They will also have formed a strong international network of colleagues who will work with each other regardless of national boundaries. Here is a quote from one of the participants: "I appreciated the high quality of courses, its interactivity and "substance". Also it's a big value for me that I have met new friends and new contacts for future partnerships.

Conclusion:

Both these courses are pilots. In supporting them, it is our hope that they will become templates for future courses that could be used in many countries. It is clear that the teachers in the Manila programme think that it could be a useful template. It is perhaps too early to say for the Eastern European course. When it is complete, we will review the experience thoroughly and decide if it should continue in that format or needs some changes. Then other groups or societies could adopt the template if they wished.

Other Fellowship Activity

The education committee gets many requests to support educational activity

especially in the area of higher level training. While we cannot support all of these, we try to facilitate them whenever we can and whenever the trainees have the support of their national societies and heads of department. Often the young anesthesiologist has done all the ground work to find a training position but lacks the funding to carry it though. Our help will sometimes include some funding but more often we may be able to find a sponsor for them.

In 2006 two young anesthesiologists from Slovakia spent a month in Basingstoke, UK.

They observed new procedures in the operating theatres and the intensive care unit. They took part in anesthetic, pediatric and radiology rounds.



Dr Martin Cubani and Dr Jaroslav Cutora seen with senior registrar at Basingstoke, UK



Dr Loani Elvir of Honduras was sponsored by a colleague Dr Daniel Wirt from the United States, through the WFSA, for a Pain Fellowship in the University Autonoma de Mexico. She has spent a full year studying pain thanks to Dr Wirt's generosity. This is a great way for individuals to be able to contribute to a less well off colleague.

Dr. Ileana Iacovache of Romania (seen here with anesthesia resident Dr Philipp Lirk) spent two months working in the Intensive Care Unit in Innsbruck. She wrote "In my two month training in Innsbruck I had the privilege of observing the activity in a state of the art Intensive Care Unit, learning the modern principles of postoperative intensive care. The staff was remarkable and always ready to answer any of my questions.



Being a young doctor, at the beginning of the career, I appreciate that the training in The University Hospital in Innsbruck will prove crucial in my future activity. I also think that the benefits of this professional experience are of great value, and will be a great help in my work. The comparison between the health systems in two different countries can become a source of inspiration for my future projects. In the end I would like to thank you again for this opportunity and I hope that you will continue this program."

Dr Karina Rando of Uruguay was recommended by Dr Gonzalo Barreiro. She needed to spend some time learning about liver transplants prior to her hospital commencing such a programme. She had succeeded in arranging a preceptorship in the University of

California at San Francisco but needed some help with funding.

During her visit she saw 12 liver transplants from different types of donors, attended ICU rounds on transplant patients, did ward rounds on patients with liver disease and attended research meetings in the transplant laboratory.



She is seen here at the ASA meeting in Chicago with Angela Enright.

Dr George Njogu from Eldoret in Kenya arranged a Fellowship in neuroanesthesia in Cape Town but had no funding to get there. After searching everywhere for funds for him, we had finally decided to help from the education budget when the Dutch Society came through with a very generous offer. Their support was thanks to the intervention of the President Dr Meusing who used her persuasive powers. They will support a Fellow from Africa for training every year for four years. This is the kind of support that really makes a difference. It would be great if other societies could consider doing something similar. We will look forward to a report from Dr Njogu in 2007.

Two Slovakian and 1 Romanian anesthesiologist visited Wolfson Medical Centre in Israel for two months in the Fall. One concentrated on the pain clinic, the others on anesthesia and intensive care. Dr Bianca Grigorescu from Romania wrote afterwards

"The training programme was very well structured and it allowed me to

participate to the complex schedule of the anesthesiology department, in a not only practical but as well a solid theoretical training. I think that all the things I have learned here will make a big difference for me, in my professional life but also for the department of anesthesia in Targu Mures where I work, being now able to bring new ideas." I have no doubt that even a short term exposure such as this is of great benefit to the trainee. I also believe that the hosts learn a great deal as well.

Special Projects

Malawi:

Mr Cyril Goddia the head of the clinical officer training programme in Malawi has been running a very successful update course. When clinical officers finish their training and go out into the rural areas to work, it is very difficult for them to keep up with new developments or to learn new techniques. Often they do not even have a textbook. With support from WFSA, clinical officers can now come into the teaching centre for a month at a time. Twenty Clinical Officers per annum participate in the program and each is supported with \$250, which is used to pay for accommodation and local transport during the 3 weeks of the program.

Emergency, regional and paediatric anesthesia are the most common areas of interest district anesthetists want to refresh and update in. They are assigned to work in different clinical areas during the first week, so that they can orient themselves and weaknesses and strengths can be assessed. During the second and third week, the clinical officers are assigned along with a student and a senior anesthetist to do cases of interest. Bedside teaching for every case is done. Special tutorials are done based on the latest literature mainly from "Update in

Anaesthesia" and Tutorial of the Week" among other sources.

Most of the discussions were problem based. Skills workshops are also held, especially in resuscitation and difficult airway management and the use of the Laryngeal Mask Airway.

The anesthesia training curriculum was being reviewed during the months of January to July, 2006 and the district anesthetists made good contributions towards improvements in the curriculum. At the end of the program, a review is done to see if objectives were met.

Uganda:

In cooperation with the International Relations Committee of the AAGBI, the education committee assisted with funding for a refresher course in Kampala organized by Drs Sarah Hodges, Margaret Okello and Cephas Mijumbi. The interesting thing about this course is that it was held twice to enable as many anesthetists as possible to attend. This was a great success as the final attendance was 305. With 330 anesthetic officers in the country, this is a phenomenal turn out. All of the physician anesthetists and postgraduate students also attended.

The course included lectures and small group sessions. At the end of the morning lecture sessions, a quiz was held and book prizes distributed to the top scorers. The workshops focused on equipment, resuscitation and difficult case management scenarios. All participants in the course were given a copy of the Oxford University Handbook.

Of particular interest is the fact that during the course participants completed a questionnaire designed by Dr Iain Wilson and colleagues. This was designed

to determine exactly what equipment, supplies, drugs and level of training are available at each site throughout the country. The results have been published in *Anaesthesia* in

January 2007. We hope to be able to take this questionnaire to other countries. Perhaps it is time for the WFSA to establish the minimum standards required in order to be able to provide safe anesthesia for basic procedures like a cesarean section. It might help some colleagues to be able to point out to their governments how their particular hospital falls short of the minimum. We will continue to work on this theme.

Visiting Teachers

As usual we have sent many speakers and teachers out to national or regional congresses or to assist with examinations. The list includes Bangladesh, Dominican Republic, Eritrea, Estonia, Guatemala, Kenya, Latvia, Libya, Malawi, Mauritius, Mongolia, Mozambique, Paraguay, Russia, Rwanda, Serbia, Sri Lanka, Uganda, Uzbekistan and Zimbabwe.

PTC

The education committee has also given significant support to the PTC foundation which will be reported on separately by Dr Douglas Wilkinson. Conclusion:

The work of the committee is always interesting and challenging. There is no question that we have shifted the focus onto sustainable programmes in anesthesia. We will continue to monitor the effectiveness of what is done and make adjustments as necessary.

Respectfully submitted

Angela Enright
February 10th 2007

Report on “Improving the Training Programme in Anaesthesia” Workshop

Dr Rob McDougall
Melbourne, Australia

Introduction

A workshop entitled “Improving the Training Program in Anaesthesia” was held by the Asian Australasian Regional Section (AARS) of the WFSA and the Philippines Society of Anaesthesiology on November 13th-14th at the Crown Plaza Hotel in Manila.

The aim of this workshop was to examine ways in which training programs in anaesthesia can be improved with a particular focus on curriculum planning, assessment and fostering professionalism.

Faculty

Professor Berend Mets
Dr Rob McDougall
Dr Roger Eltringham
Dr Grace Herbosa
Dr Ricardo de Castro
Dr Minerva Calimag

Organising Committee

Dr Florian R Nuevo
Dr Angelina Gapay
Dr Mary Ann Marcelo
Dr Lucille Lee Lim
Ms Karen Braga

Course Content and Conduct

Between 50 and 60 participants, representing nearly all of the 42 training programmes in the Philippines, attended the workshop.

There were 4 main sessions: “Components of a good training program”, “Devising the curriculum”, “Assessment of Trainees” and “Clinical supervision and Remediation”. Other topics included “Practical Implementation of the ACGME Outcomes Project in Residency Training” and “Teaching Tips”.

The sessions on curriculum and assessment included small group activities in which each group was asked to plan a curriculum for a component of an anaesthesia training programme and then blueprint an assessment for the component and write sample questions. Each of the groups presented their projects on the morning of the second day.

Feedback from Participants

The participants liked the practical group sessions (“break-up”) and the quality of the faculty and teaching. The choice of topics was



Dr Rob McDougall

well received, with the “Devising a Curriculum” session, particularly popular.

There were few negative comments, the most common being that there was too little time allotted for the group tasks. However, there were a large number of suggestions for improving the workshops, the majority suggesting other topics that should be included.



Presentation of certificates by Prof Mets

Feedback from Faculty

The Faculty was extremely impressed at the level of organisation for the workshop by the Philippine Society of Anesthesiologists. This made the task of teaching and facilitating very easy. The participants were a knowledgeable group and it was unanimously agreed that the choice of topics and the level at which they were pitched was appropriate.

A number of participants were identified as potential faculty members for future AARS/WFSA education courses.



Participants at the Asean conference

It was agreed that with better pre-course briefing, the practical sessions would have been completed on time. Having the group presentations the morning after the group practical sessions did help lessen the impact of the time pressures.

It was felt that the program was appropriate and that little modification needs to be made from the basic structure. The use of local experts to give the Philippine picture was vital to the success of the workshop.

Recommendations for Future Courses

This course is suitable for countries

in which an anaesthesia training programme is well established and where it is possible to gather training supervisors together for two days.

All topics worked well and there is no need for a major revision to the programme.

Where possible local experts should be included in the faculty.

I recommend that the AARS/WFSA continue to offer this course to other anaesthesia training bodies.

Acknowledgements

I would like to acknowledge the efforts of the Philippine Society

of Anesthesiologists, in particular, Dr Florian R Nuevo. Their preparations and hospitality were outstanding.

The generous funding contribution from the WFSA Education Committee of \$5000 is also acknowledged. This went towards the travel expenses of Drs Eltringham and Mets and room hire.

I am very grateful to my colleagues on the faculty for their hard work in preparing for the workshop and their great enthusiasm during the workshop.

**AARS Education Workshop in Manila
13-14 November 2006
Improving the Training Program in Anaesthesia**

Day 1	Coordinator:	Dr F Nuevo
07.00 – 07.45	Registration	
07.45 – 08.00	Welcome Formalities	
08.00 – 09.30	Session 1: Components of Good Training Program	<i>Dr Nuevo</i>
	General Overview (including USA)	<i>Prof Mets</i>
	Presentation of the Training Programme in the Philippines	<i>Dr Herbosa</i>
	In the UK	<i>Dr Eltringham</i>
	In Australia	<i>Dr McDougall</i>
09.30 -09.45	Tea/Coffee Break	
09.45 – 10.45	Session 2: Devising the Curriculum	<i>Dr McDougall</i>
	Setting Objectives	
	Planning	
	Delivery	
	Discussion	
10.45 – 12.00	Break-up Sessions/Small Group Tasks on Curriculum (3 groups)	

Each group will have the task of devising a curriculum for a training program. One will devise training aims, one will write a series of training objectives and the other will develop a plan for delivering the curriculum.

12.00 – 13.30	Lunch Break	
13.30 – 14.15	Session 3: Assessment of Trainees	<i>Dr McDougall</i>
	Blueprinting	
	Formative assessment	
	Summative assessment (written, MCQs, clinical, vivas)	
14.15 – 15.45	Assessment in different systems (7 minutes each presentation)	
	UK	<i>Dr Eltringham</i>
	US	<i>Prof Mets</i>
	Australia	<i>Dr McDougall</i>
	Philippines	<i>Dr De Castro</i>
	Open Forum / Discussions	
15.45 – 16.00	Tea / Coffee Break	
16.00 - 17.15	Break-up Sessions /Small Group Tasks on Assessment of Trainees	
	Three groups, each has to design an appropriate assessment for final exams for trainees	
17.15 – 17.30	Summary for Day 1/Assignments for Day 2	<i>Dr Nuevo</i>
.....		
Day 2	Coordinator	Dr Marcelo
07.00 -07.45	Registration	
07.45 – 08.00	Welcome Formalities	
08.00-09.00	Presentation by the Small Groups on Curriculum Design (20 minutes each group)	
09.00-10.00	Presentation by the Small Groups on Assessment (20 minutes each group)	
10.00 -10.15	Tea/Coffee Break	
10.15 -11.45	Session 4: Clinical Supervision and Remediation	<i>Prof Mets</i>
	General Overview (including US situation)	<i>Prof Mets</i>
	Presentation of UK situation	<i>Dr Eltringham</i>
	Australia situation	<i>Dr McDougall</i>
	Philippine situation	<i>Dr Calimag</i>
	Open Forum	
11.45 – 12.30	Session 5: Teaching Tips	<i>Dr Eltringham</i>
12.30 – 14.00	Lunch Break	
14.00 – 14.30	Session 6: "Practical Implementation of the ACGME Outcomes Project in Residency Training	<i>Prof Mets</i>
14.30 – 15.00	Summary for Day 2	<i>Dr McDougall</i>
15.00 – 15.30	Tea / Coffee Break	
15.30 – 16.00	Overall Summary for Day 1 and Day 2	<i>Dr Nuevo</i>
16.00 – 16.30	Awarding of Certificates of Attendance	<i>Dr Nuevo</i>

Harnessing Private Practice

Dr Roger Eltringham

Consultant Anaesthetist
Gloucestershire Royal Hospital
Gloucester, UK

One of the comments most frequently made by those applying for consultant posts in anaesthesia in this hospital (Gloucester Royal) is that they were attracted by the existence of an established private practice group.

Many already had experience in other hospitals or anaesthetic departments where consultants were competing against each other in a scramble for private practice. Their social and family life was disrupted by their need to be constantly available, their commitment to the anaesthetic department was reduced but they seemed prepared to put up with a totally one sided 'master and servant' relationship with their surgical colleagues. This had been the situation in Gloucester for years and it was not until a private practice group was formed that conditions improved.

The Gloucestershire Anaesthetic Service (G.A.S.) began inauspiciously enough with three new consultant anaesthetists sitting round a table in an ale house looking for ways of improving the working relationship with their surgical colleagues and raising the morale of the department, while at the same time participating in any private practice that was available.

A group of equal partners was proposed as one way of achieving these goals. It was a fairly novel concept at the time and was introduced in the face of determined opposition from senior colleagues in both the surgical and anaesthesia departments. Thirty years later it is seen to have succeeded beyond all expectations and is now the biggest private group in England with 43 members. Its obvious success has prompted requests for advice from anaesthetists in other departments both in U.K and, more recently, from overseas who wanted to start group practices themselves and enjoy the same benefits.

Even in the poorest countries private practice may exist and a surprising degree of disruption can be caused to an anaesthetic department even when the benefits are relatively small. There is no reason however why the same principles cannot be applied to departments anywhere in the world with the same results.

Those contemplating the formation of a group practice can expect to encounter many challenges and face difficult questions. However, it is well within the capabilities of members of any department with the necessary enthusiasm and initiative. The questions commonly asked by those wishing to establish a group are listed below along with answers which may be helpful.

How do I go about setting up a group?

The first step is to identify one or more colleagues who share the view that practising as a group has advantages. There are likely to be many teething problems initially so it is wiser to start with a small group and expand gradually as the various hurdles are cleared rather than to form a large group initially and have to face all the problems straight away.

What should be the first move?

Once a group of colleagues who share the same aim have been identified it is important to establish the fundamental principle. This should be stated as simply as possible e.g. "To establish a group of partners who wish to share the available private work among the members and distribute the income equally". It is not necessary to compile a set of complicated regulations to cover every conceivable situation although, as the practice expands, more formal arrangements will be needed.

How is the concept introduced to colleagues?

Once the principle has been agreed the next step is to inform all other members of the department of your intention to form a group. No one should be excluded as this will cause ill-feeling. They should be invited to attend an inaugural meeting if they wish to hear the details of the plans.

How are my colleagues likely to respond?

A great deal of opposition can be expected at this stage, especially from established consultants with lucrative private practices. They will either ignore your invitation completely or actively campaign against it. They will not want to share their income with anyone with little or no income of their own. They may wish to impose their own conditions for joining such as "I will earn more than other members therefore I should be paid more". Whilst one can sympathise with this point of view, nevertheless the whole object of the group is that members cannot earn more money for themselves by monopolising the available work. However, this is not an issue you need to confront at this stage. Your priority is to get the group up and running and establish the principle of sharing. Therefore, for the moment, politely decline their offer and proceed without them.

How do I choose a starting date?

Once the membership and regulations are agreed a starting date is arranged. Preferably, this should be a few weeks ahead to allow time for the necessary publicity. A letter is sent to all colleagues likely to require anaesthesia services, informing them of the existence of the new group, the names of the members and, most importantly, the contact telephone number.

Is an administration secretary required?

Initially all that is needed is a reliable mobile (cell) phone which is manned 24 hours a day by one of the partners. As the partnership expands a part-time secretary will be required to answer all the phone calls and make the bookings. The secretary should be instructed to accept all requests at the time of booking since availability is the cornerstone of the practice. The details as to which of the partners will actually administer the anaesthetic can be sorted out amongst the members later. This may involve a considerable degree of co-operation between the partners and a willingness to inconvenience themselves whenever necessary for the sake of the team.

What publicity is needed?

As with any enterprise, publicity is important. The users are your surgical colleagues so they are the target. It is important to understand the surgical personality. Surgeons are very busy people whose services are in great demand. When a surgeon wants to perform an operation he does not want to waste time phoning around numerous anaesthetic colleagues until he can find one who can help. He wants to make a single call and know that a competent anaesthetist will be there at the time of his convenience. The actual identity of the anaesthetist is usually of secondary importance to the surgeon. However if a particular anaesthetist is requested for a

particular operation this request should be granted wherever possible, if necessary, by means of judicious cross cover between the partners.

How can other colleagues be encouraged to join the group?

The only people who will want to join initially are newcomers to the department or those who have little or no private practice themselves and like the idea of sharing yours. Therefore, initially, the effect of recruiting new members will be to reduce the value of each share. They are however bringing their talent and availability and in the long term these are the factors that will assure your success.

Should additional new members receive a full share initially?

Whether or not new members receive a full share initially is open for discussion, but they must certainly be offered this as the ultimate aim. In G.A.S., new members are offered 0.5 of a share from day one, increasing annually by 0.1 of a share so that after 5 years they earn a full share. Some members wanted this time interval extended, some wanted it reduced. In practice it works very well.

What progress should we expect?

In the first 3-6 months very little, but this will improve as the group gains a reputation for providing a good service at anytime of the day or night and its popularity will rise among the surgeons.

Can anything be done to encourage high earning colleagues to join?

Yes. Once the group is well established and up and running, but not before, applications from high earning colleagues should be considered as they will bring considerable income with them. Whilst the maximum income of one share remains the ultimate goal, arrangements can be made for this to be achieved gradually. The following formula was found to be acceptable:

High earners commence on 1.5 shares which then reduces by 0.1 of a share each year to achieve parity after 5 years. In fact, in GAS, the share value rose steadily over this period so that their actual reduction of income was negligible.

What happens when members are unwell and cannot work?

Another feature that attracted senior colleagues was the arrangement to continue normal payment for a period of up to six months in the event of illness. Anxiety over loss of income during illness proved to be a great stimulus for high earners to join the group.

How are members persuaded to share the available work?

All earnings are paid into the group account and members remunerated each month according to their agreed share. A print-out of receipts and payments for each member

is prepared monthly and circulated among the group so everyone can identify the members who are over contributing and those who are under contributing. In practice, members generally regulated their work themselves in order to achieve a balance. Persistent under earners are offered more work by the secretary in order to restore the equilibrium. If they persistently fail to meet the target or wish to reduce their workload then their share value is reduced accordingly. This can usually be achieved by mutual consent.

Do all members charge the same fee for the same anaesthetic?

In the U.K. there are regulations against the formation of a cartel and successful prosecutions for price fixing have resulted for those who have ignored them. This legal minefield is best avoided if members do not band together to fix an exact price for each procedure. Guidelines on a range of fees are available from medical insurance companies.

How can we be sure that each member of the group pays all the fees they receive into the group practice account?

Each member of the group is required to keep records which must be available for inspection by colleagues. Random checks against the operating room register are arranged by the committee. This simple plan has received the full co-

operation of the membership and has the advantage that it costs nothing.

Conclusion

The advantages of the formation of a group for private practice can be summarised as follows;

1. The income of the members is more predictable. The income of each member depends on the average for the group so that the extreme peaks and troughs are avoided.
2. Individual anaesthetists do not have to be permanently on call in anticipation that a private anaesthetic will be required. Twenty four hour cover is the responsibility of the entire group so that individual members are able to regulate their own private lives.
3. Teaching commitments can be fulfilled and are not jettisoned in favour of private anaesthesia opportunities. This is particularly appreciated by trainees and students who need maximum support and encouragement to develop an interest in anaesthesia.
4. Illness of up to six months duration does not result in a loss of salary.
5. Competition for private practice between members of the department is replaced by co-operation.
6. A healthy working relationship with surgical colleagues is created.

Sir Terence English KBE

Patron of the Primary Care Trust

The Primary Care Trust (PTC) is delighted that Sir Terence English has agreed to become the Patron of the Organisation. His appointment sets the seal on his previous invaluable association with PTC for, without his assistance, PTC would not have been able to start work in Pakistan and then India. It was Sir Terence, with his wealth of friends and contacts in Pakistan, who introduced us there and the thus “set the ball rolling”.

Sir Terence has had a distinguished and eclectic career which started with a BSc in mining engineering in South Africa, where he was born. After a short period in that profession: - his stories of this time are a source of delight and amusement to those of us privileged to hear them - Terence left for England to study medicine at Guy's Hospital where he qualified in 1962. He chose cardiac surgery as his speciality and worked with many pioneer in that field included Lord Brock. He was appointed a consultant at Addenbrookes's and Papworth hospitals in Cambridge in 1972 and it was there that he performed the first successful, long-surviving, UK heart transplant in 1979. Sir Terence became Director of the British Heart Foundation Transplant Research Unit and was subsequently President of the International Society of Heart Transplantation.

It was to be expected that great honours would follow and he became president of the Royal College of Surgeons of England (1998-1992) and was made a Knight Commander of the British Empire (KBE) in 1991. To sequentially describe his many achievements and honours would

be to present a remarkable list but it is too long for this short article. However, it cannot go without notice that Sir Terence was President of the British Medical Association between 1995 and 1996 and, in July 1993, was elected to the position of Master of St Catherine's College, Cambridge; a position he held until 2000.

Retirement is a word that he obviously does not recognise and he has been in constant demand to offer his experience in many fields and also to serve on charities including the Winston Churchill Trust and the Leonard Cheshire Foundation with the latter leading to his connection with the PTC Foundation.

We could continue with a list of his professional achievements and the honours awarded but, when writing about Sir Terence, it would be wrong to concentrate on this aspect of his life and ignore his remarkable personal qualities. Those of us privileged to be called a friend by him recognise that along with his obvious eminence there are other, perhaps even more importantly, attributes that make him a truly great man. Despite all he has done, he is quietly modest and is certainly surprised that others view him with some awe. He is, above all, generous and loyal to his friends, and no more so than in unstinting drawing on his past experience when giving advice and support with no regard to time required.

His wisdom is inherent but also derived from a great and varied experience of life while his courage is demonstrated in recalling his determination to establish a heart



Terence English KBE

transplant service at a time when such new developments were unpopular with Health Serve officials and politicians.

Terence is a great and humorous companion and I have also noticed that, although a warm and close friend, he has the integrity to give his guidance to me with complete candour, and often amusingly, when I shoot off on an over enthusiastic tangent.

I expect that this very modest man will gently reproach me for writing the truth about his remarkable life and virtues. But, so be it, for it is surely right that all be aware of his worth. We are fortunate in the appointment of our Patron for I know that his influence will enhance PTC activity throughout the world.

**Welcome, Sir Terence.
John Bevis FRCS**

Dr Iain Wilson - Chair of the Publications Committee of the WFSA

Roger J Eltringham
Gloucester, UK

Iain Wilson is a true Scotsman who grew up in Busby, Lanarkshire. He studied medicine at Glasgow University and qualified in 1978. While at university, he joined the Royal Air Force and, on qualification, he was immediately posted to Germany where he began his anaesthetic career. His dynamism evidently did not go unnoticed by the Air Force top brass and when he left the RAF after five years service, not only had he gained his Fellowship, but had also been promoted in rank to the dizzy height of Squadron Leader.

He then joined the Bristol anaesthetic training programme, from where he applied for a British Council scholarship. Apparently, he so impressed the interviewing panel that his appointment was confirmed within seconds and he was sent to Zambia as a lecturer in anaesthesia at the University Teaching Hospital in Lusaka (LUTH).

During his two years at LUTH (1986-88), he dramatically raised the profile of anaesthesia and stimulated interest in the specialty among medical students, clinical officers and newly qualified doctors. He experienced at first hand the full extent of the difficulties facing anaesthetists in the developing world and this had a profound effect on his subsequent career.

He returned to the UK from Zambia in 1988 and rejoined the Bristol training programme. In 1990, he was appointed consultant anaesthetist at the Royal Devon and Exeter Hospital (RD&E) in Exeter, a post he has held ever since. Despite his heavy clinical responsibilities as a consultant in a busy district general hospital,

he has undertaken a prodigious additional workload which would have overwhelmed lesser mortals. Indeed his only obvious fault is his inability to say "no" to any request or challenge however daunting.

Iain was director of medical education at the RD&E between 2000 and 2003 and then became one of the joint Medical Directors of the Trust: a post he still holds. Much of his energy has, however, been directed towards projects outside the hospital aimed at improving the standard of anaesthesia in developing countries.

In 1994, he was elected to the International Relations Committee of the Association of Anaesthetists of Great Britain and Ireland and he was a founder member and, until recently, chairman of the World Anaesthesia Society. He initiated the journal "Update in Anaesthesia" in 1992 and was its editor until 2005. This has become so popular that it is now supported by the World Federation of Societies of Anesthesiologists (WFSA), is available online and is read by anaesthetists in over 130 countries with editions in French, Spanish, Russian and Mandarin. A Portuguese edition is in preparation.

Iain was elected to the publications committee of the WFSA in 2000 and became chairman in 2004. He has been an active chairman and the work of the committee has steadily increased and now



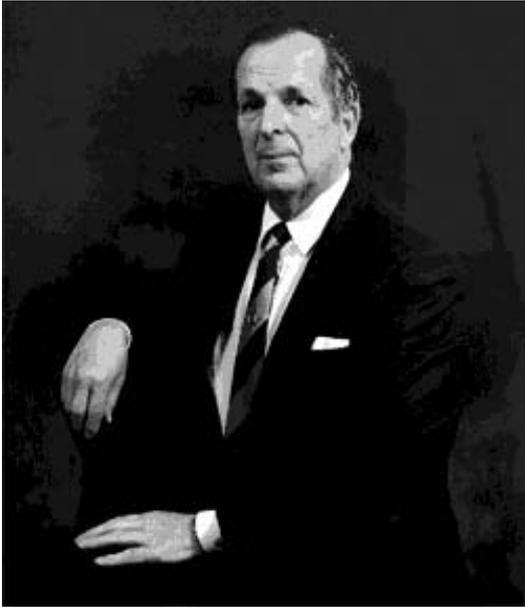
Iain and his family

includes the publication of "Tutorial of the Week" on the internet and the distribution of books and journals to anaesthetists in developing countries.

Iain is in great demand as a lecturer both in the UK and overseas and has participated in and frequently helped organise numerous refresher courses in Africa for the WFSA. He has published more than 25 original articles and five books including the immensely popular "Oxford Handbook of Anaesthesia." His skilful management of the publications committee budget for the WFSA did not go unnoticed and he has now been appointed treasurer of the AAGBI.

During this whirlwind of creative activity, he found time to marry Carol without whose love and support, these feats would have been impossible. They have a daughter, Joanna, who is a medical student in Aberdeen and a son, Michael, who is in the army. Iain has little time for hobbies but is a keen motor cyclist and is occasionally seen racing around the narrow lanes of Exmoor to the alarm of the locals.

Iain has been a credit to his profession, to Scotland and to the WFSA. He is an ideal role model for anyone wishing to improve the image of anaesthesia throughout the world.



John Zorab

John Zorab

anaesthetic Fellowship across Bristol and stimulated the building of the hospital's Post-Graduate Medical Centre (now named after him) that was to become a model for such centres throughout the UK. He helped to found the European Academy of Anaesthesia and the European Diploma of Anaesthesiology

and Intensive Care, a multi-lingual examination that has been running for 22 years and attracts over 1000 candidates annually.

He went to Vietnam for 6 months after the war to help with reconstruction. Together with Roger Eltringham, he set up a programme to assist anaesthetists in developing countries by running a series of Refresher courses.

John soon found himself on the Council of the Association of Anaesthetists and the Board of the Faculty of Anaesthetists of the Royal College of Surgeons. He became Honorary Secretary of the Association and set about organising the annual meetings on a professional basis.

By this time, John had also developed an interest in anaesthesia in Europe and worldwide. In 1982, he was the Secretary of the European Congress held in London. He and his wife, Shirley, whom he married in 1953, were recognised as a formidably talented team and he rapidly rose to become President of the European Section and later President of the World Federation of Societies of

Anesthesiology (1988-92). Together with Shirley, he attended every meeting of the WFSA until 2002. He was also President of the Society of Anaesthetists of the South West Region (1990-91) and, following his retirement, was appointed an Honorary Member.

In his latter years he became involved in hospital management at Frenchay. He was so effective in his initial appointment as Clinical Director of Anaesthesia and Intensive Care that the surgeons, who could not decide which of their number should be their Clinical Director, that they asked John to represent them. Subsequently the Accident and Emergency Department did the same thing. It was inevitable that he was invited to become the Medical Director of all services at Frenchay and he stayed on for two years after his retirement at 65 to fulfil that role.

After retirement, he plunged into studying the history of medicine and, at the age of 76, passed the History of Medicine of the Diploma of the Society of Apothecaries (DHMSA). He also wrote numerous letters to the medical press on a variety of subjects but often deploring the standard of dress among some health professionals: he would always exhort all doctors to smarten up and wear a jacket and tie. He frequently contributed to this journal on a variety of topics but often joked that he was the Obituary Editor; indeed he contributed three to the last issue that was published.

Polite, always well dressed – with a College or old school tie and a handkerchief in his top pocket, he was an archetypal English gentleman. Very

John Zorab was born into a medical family on 16 January 1929. He was the youngest of six boys; all his siblings became doctors or dentists. He was educated at Cheltenham College and graduated from Guy's Hospital in 1957.

He trained in anaesthesia at Guy's, the Westminster and Southampton under Sir Geoffrey Organe, Cyril Scurr Philip Hallowell and Patrick Shackleton and obtained his FFRCA (now FRCA) in 1962.

In 1996 he was appointed a consultant at Frenchay Hospital, Bristol. With Peter Baskett and Tom Wilton, he created an anaesthetic department that achieved a national and international reputation for innovation and clinical excellence and, above all, for friendliness.

John was a clear thinker, a diplomat and a formidable achiever. With Peter Basket, he established the ICU at Frenchay, obtained a one-man hyperbaric chamber for treating coal gas poisoning and wrote a book on Immediate Care.

He was also responsible for establishing courses for the

genial, he would say "I like to meet and talk to people because with a name like mine they might think I was a foreigner."

He was both tolerant and intolerant. He was tolerant and helpful to the underdog: the timid SHO who was struggling or the overseas doctor who needed access to a journal, a job opportunity or some equipment. He was intolerant of arrogance, bullying, unfairness or the lowering of professional standards.

Poor John suffered more than his fair share of illness and pain in his latter years but, characteristically,

bore it with courage and fortitude. He was a deeply religious man but never discussed his beliefs in depth, believing it was an essentially private matter.

John was devoted to his wife of more than 50 years, Shirley, to his four children and latterly, his grandchildren.

John Zorab made numerous major contributions to anaesthesia and Intensive Care in the UK, in Europe and worldwide. Numerous colleagues and friends were truly saddened by the news of his death but he and the standards and principles he stood

for will not be forgotten. Many, throughout the world, have reason to be grateful for John's influence and wise advice at some stage of their career and regard it as being a privilege to have known him.

Peter Baskett
Peter Simpson
John Carter

Editorial Note:
A longer version of this Obituary appeared in the October issue of "Anaesthesia" (61:1024-1025). It has been shortened and slightly modified and is reproduced here with the permission of the Editor

15th World Congress on Disaster and Emergency Medicine (WCDEM)
Congress date: May 13-16, 2007
Congress venue: RAI Congress Centre Amsterdam, The Netherlands
Website: www.wcdem2007.org

The Amsterdam 15th WCDEM Congress aims to catalyse thought-processes and to come up with clear products to enable all involved; experts, organisations and governments to be better prepared for the next disaster or crisis.

The central themes of the Congress will be:

Preparedness, Knowledge, Training and Networks

Due to the attractiveness and convenience of Amsterdam as a venue, around 1000 delegates are expected to attend the 15th World Congress on Disaster and Emergency Medicine in Amsterdam 2007. About 25% of the participants will have a professional health background in clinical medicine (such as anesthesiology, emergency medicine, surgery or hands-on-experiences in disaster areas), psychosocial care and public health. An equal number of the attendees also will have a medical background but are now in a senior position in management or in policy making for emergency and disaster medicine. Another quarter of the attendees are expected to have a management position in emergency and disaster medicine development and strategy (including representatives from governments and NGO's), while the remaining attendees will have a wide range of backgrounds including volunteers, paramedics, nurses, and researchers.

For programme TOPICS please visit the website: www.wcdem2007.org

Useful Information

World Federation of Societies of Anaesthesiologists (WFSA)

21 Portland Place, London,
W1B 1PF
UK

Tel: (+44) 0207 631 8880

Fax: (+44) 0207 631 8882

Email: wfsahq@anaesthesiologists.org

Courses in Anaesthesia for the Developing World

Oxford (UK): July (annually).

Contact: Dr. M. Dobson

Department of Anaesthesia

John Radcliffe Hospital

Headley Way

Headington,

Oxford OX3 9DU

UK

Tel: (+44) 01865 221589

E-mail: michael.dobson@nda.ox.ac.uk

Bristol (UK): December (annually).

Contact: Dr. Claire Jewkes

Department of Anaesthesia

Frenchay Hospital

Bristol BS16 ILE

UK

Tel: (+44) 01179 701212

Email: james.rogers@nbt.nhs.uk

Remote Situations, Difficult Circumstances, Developing Country Anaesthesia

Hobart or Launceston (alternate years), Tasmania, Australia

Contact: Dr Haydn Perndt

Royal Hobart Hospital

GPO Box 1061-L

Hobart, TAS 7001

Australia

Email: haydn.perndt@utas.edu.au

Primary Trauma Care Foundation

• An organisation training doctors and nurses in the management of severely injured patients in the District Hospital.

• Contact: PTC Foundation

• Outeniqua House

• 313 Woodstock Rd

• Oxford, OX2 7NW

• UK

• **Email: ptc@nda.ox.ac.uk**

• PTC Chairman: Dr Douglas

• Wilkinson (douglas.wilkinson@nda.

• ox.ac.uk)

• PTC Administrator: Annette

• (admin@primarytraumacare.org)

Durbin plc

• This organisation has bought ECHO and now supplies drugs and equipment to developing countries.

• Contact: Durbin plc

• Durbin House

• 180 Northolt Rd

• South Harrow

• Middx. HA2 0LT

• UK

• **Email: www.durbin.co.uk**

Equipment collection and distribution to the developing world

• Carelift International Inc.

• 185 Walnut Street (Floor 22)

• Philadelphia P.A. 19103

• USA

• **Tel: (+1) 215 535 3590**

• Dr. William Rosenblatt

• REMEDY

• Dept. of Anaesthesia

• Yale University School of Medicine

• 333 Cedar Street, New Haven

• CT 06510

• USA

Book Aid International

• 39-41 Coldharbour Lane

• Camberwell

• London SE5 9NR

• UK

• **Tel: (+44) 020 7733 3577**

• The organisation is interested in receiving recent complete sets of journals and newish text books. These are collected free and distributed by Rotarians.

Society for Education in Anesthesia

• International members are invited to join this Society that promotes techniques and excellence in the teaching of Anesthesia.

• 520N Northwest Highway

• Park Ridge, Illinois 60069-2573

• USA

• **Tel: (847) 825 5586**

• **Fax: (847) 825 5658**

• **Email: sea@asahq.org**

• **Web: www.seahq.org**

The TOKTEN Project

• Expatriate nationals returning to their country of origin are invited to apply for the post of project expert. Each project is sponsored by the United Nations who would meet the cost of international travel and pay a subsistence allowance (\$90/day). Applications should be made to the Minister of Health of the host developing nation.

Technical Assistance at Low Cost (TALC)

• A unique charity that supplies low-cost healthcare, training and teaching material to raise the standard of healthcare and reduce poverty worldwide.

• Contact: David Moreley

• Institute of Child Health

• Guilford Street

• London WC1N 1EH

• UK

• **Web: www.talcuk.org**

Useful Information continued

Douleurs sans Frontières (DSF).

Goals:

1. To participate, to create or to encourage any structure involved in the treatment of pain and suffering (cancer pain, AIDS, acute pain, etc..)
2. To search for therapeutic methods, to provide training and to propagate knowledge about pain and suffering especially in developing countries.

For further information contact:

Douleurs sans Frontières

Docteur Alain Serrie

Hôpital Lariboisière

2, rue Ambroise Paré

75010 Paris, France

Tel: (+33) 1 49 95 81 77

Fax: (+33) 1 49 95 69 98

Email: alain.serrie@lrb.ap-hop-paris.fr

or

Docteur Jacques Meynadier

Centre Oscar Lambret

BP 307 - 59020 Lille cedex, France

Tel : (+33) 3 20 29 59 89

Fax : (+33) 3 20 29 59 97

Email : j-meynadier@o-lambret.fr

International Anesthesia Research Society (IARS)

2 Summit Park Drive 140

Cleveland, Ohio 44131

USA

Tel: 216 642 1124

Fax: 216 642 1127

Email: amaggiore@iars.org

The International Committee of the Red Cross (ICRC)

- The ICRC acts to help all victims of war and internal violence, attempting to ensure implementation of humanitarian rules restricting armed violence.

Contact: ICRC,
Recruitment Division
19 Ave. de la Paix

• CH-1202

• Geneva

• Switzerland or your local society.

• **Web: <http://www.icrc.ch>**

Overseas Doctors Training Scheme (UK)

- Anaesthetists seeking recognised training posts in the UK should apply to the:

• Bernard Johnson Adviser

• Royal College of Anaesthetists

• 8 Russell Square

• London WC1J B 4JX.

• UK

• **Tel: (+44) 020 7637 4104**

• **Email: odts@rcoa.ac.uk**

- **The SOROS Foundation** will consider applications from anaesthetists in Eastern and Central Europe for support for limited periods of study in the UK. Applications should be made in advance to the branch office of their country of origin whose address may be obtained from:

• The Soros Foundation

• 400 West 59th Street

• New York

• NY 10019

• USA

• **Tel: (+1) 212 548 0600**

• **Fax: (+1) 212 548 4600**

• **E-mail: osnews@sorosny.org**

Teaching Videos:

- The following titles are available at £5 each:

• 1. Servicing the EMO & Tri-Service vaporisers.

• 2. The oxygen concentrator

• 3. The Manley multivent/
Glostavent

• 4. Servicing the
anaesthetic machine

• Contact:

• Dr. R Eltringham

• Gloucestershire Royal Hospital

• Gloucester GL1 3NN

• UK

• **Tel: (+44) 01452 394786/394194**

• **Fax: (+44) 01452 394485**

• **E-mail: reltringham@btinternet.com**

Job opportunities in the developing world

- These are listed in a bimonthly magazine produced by the International Health Exchange and on its website.

• Contact:

• IHE / RedR

• 1 Great George St

• London SW1P 3AA

• UK

• **www.ihe.org.uk**

US volunteers wishing to spend periods working in developing countries

• Contact:

• 1. Dr. Lena Dohlman

• Health Volunteers Overseas

• c/o Washington Station

• PO. Box 65157

• Washington DC 20035-5157

• USA

• **Tel: (+1) 202 296 0928**

• **Fax: (+1) 202 296 8018**

Useful Information continued

2. Committee Chair
Overseas Teaching Program
American Society of
Anesthesiologists
520 N. Northwest Highway
Park Ridge, IL 60068-2573
USA

World Anaesthesia

This organisation works to improve standards of anaesthesia throughout the world. In conjunction with the WFSA, it produces two publications, *World Anaesthesia News and Update in Anaesthesia** (an add-on textbook) published twice-yearly. The annual subscription is £35, or \$65. For further information

Contact:

Dr. Iain Wilson

World Anaesthesia Society

Association of Anaesthetists of Great
Britain & Ireland

21 Portland Place

London W1B 1PY

UK

E-mail: carol@world-anaesthesia.org

www.world-anaesthesia.org

*** also available at:**

www.nda.ox.ac.uk/wfsa

Association for International Development of Anaesthesia (A.I.D.A.)

Contact:

Professor Stanley Samuels

Department of Anesthesia

Stanford University Medical Centre

Stanford

California

USA

Tel: (+1) 415 723 6411

Fax: (+1) 415 723 8544

Email: Samuels@Ireland.stanford.edu

Commonwealth Medical Awards

- Available to citizens of Commonwealth countries for limited periods of postgraduate study within the UK. Applications should be addressed to the:

- Medical Awards Administrator

- Commonwealth Scholarship

- Commission

- 36 Gordon Square

- London WC1H IPE

- UK

Medecins Sans Frontieres (MSF)

- offers assistance to populations in distress, to victims of natural and man-made disasters and to victims of armed conflict. They require volunteers for both long and short-term projects. If you are interested in obtaining more information, contact them at:

- MSF

- 64-74 Saffron Hill

- London ECIN 8QX

- UK

- **Tel: (+44) 020 7404 6600**

- **Email:** office-ldn@london.msf.org

- or

- 11 East 26th St.

- Suite 1904

- New York NY 10010

- USA

- **Tel: (+1) 212 679 6800.**

- **Email:** www.msf.org or www.uk.msf.org

WHO Liaison Officer

- Dr M Dobson

- Nuffield Department of Anaesthetics

- The John Radcliffe Hospital

- Headley Way

- Headington

- Oxford OX3 9DU

- UK

- **Tel: (+44) 01865 221589/741166**

- **Fax: (+44) 01865 221593/453266.**

- **E-mail:** michael.dobson@nda.ox.ac.uk

- If you wish to advertise your organisation on this page (free-of-charge), please contact:

- The Editor

- Dr W F Casey

- Popes Cottage

- Cheltenham Rd

- Painswick

- Glos. GL6 6TS

- UK

- **Tel: (+44) 01452 814229**

- **Fax: (+44) 01452 812162**

- **Email:** wfcasey@doctors.org.uk

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- 41 Crayford Way

- Crayford

- Kent DA1 4JY

- UK

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- **Fax: (+44) 01322 558524**

- **E-mail:** MediaPublishers@aol.com

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- **Sumographics**

- 67 Sullivan Road

- Exeter

- Devon EX2 5RB

- UK

- **Tel: (+44) 01392 669098**

- **E-mail:** info@sumographics.co.uk

- **www.sumographics.co.uk**

Anaesthetic websites to try

Resources

Anaesthesia & Critical Care Resources on the Internet	www2.eur.nl/cgi-bin/accr.pl
Anaesthesia UK	www.anesthesiauk.com
Anesthesia Web	www.anesthesiaweb.com/
Anesthesia International	www.geocities.com/aneint
Armenian Society of Anaesthesiologists	http://freenet.am/~armanest
Ask Medline	http://askmedline.nlm.nih.gov
Bandolier (Evidence-based Medicine)	www.jr2.ox.ac.uk/Bandolier
Cyber Medical College	www.cybermedicalcollege.com
Developing Anaesthesia (Australia)	www.developinganaesthesia.org
Gasboys (& gasgirls)	http://gasboys.net
Illustrated Regional Anesthesia	www.nysora.com or http://depts.washington.edu/anesth/regional/welcome/html
Indian Anaesthetists Forum	www.theiaforum.org
Primary Trauma Care Foundation	www.primarytraumacare.org
Society for Education in Anesthesia	www.seahq.org
The National Library of Medicine	www.pubmedcentral.nih.gov
The Trauma Organisation	www.trauma.org/
Virtual Anaesthetic Machine	www.vam.anest.ufl.edu
Virtual Anaesthesia Textbook	www.virtual.anaesthesia-textbook.com
Virtual Libraries and Museums	www.www.nda.ox.ac.uk/Pages/BooksFrame.html
World Anaesthesia Online	www.world.anaesthesia.org

Journals:

Anaesthesia	www.blackwell-science.com/ana
Anaesthesia and Analgesia	www.anesthesia-analgesia.org
Anaesthesia and Intensive Care	www.aaic.net.au
Anesthesiology	www.anesthesiology.org
British Journal of Anaesthesia	www.bja.oupjournals.org
British Medical Journal	www.bmj.com
NEJM	www.contents/nejm.org

Blackwell, the publishers of numerous anaesthetic and pain journals including the BJA and Acta Anaesthesiologica Scandinavica are available free of charge to those working in developing countries at www.blackwell-science.com/anaesthesia.asp

Associations:

American Society of Anesthesiologists (ASA)	www.asahq.org
Association of Anaesthetists of Great Britain & Ireland	www.aagbi.org
Australian Society of Anesthetists	www.asa.org.au
Douleurs Sans Frontieres	www.douleurs-sans-frontieres.org
European Academy of Anaesthesiology	www.eaa.euro-anaesthesiology.org/
International Anesthesia Research Society	www.iars.org
International Society for Anesthetic Pharmacology (ISAP)	www.isaponline.org
International Society for the Study of Pain	www.iasp-pain.org
International Trauma Anaesthesia & Critical Care Society	www.itaccs.com
National Confidential Enquiry into Patient Outcome and Death	www.ncepod.org.uk
Obstetric Anaesthetists Association	www.oaa-anaes.ac.uk
Royal College of Anaesthetists	www.rcoa.ac.uk/
Society for Ambulatory Anaesthesia	www.sambahq.org
Society for Critical Care Medicine	www.sccm.org
Society for Computing and Technology in Anaesthesia	www.scata.org.uk
South African Society of Anaesthesiologists	www.sasaweb.com
World Federation of Societies of Anaesthesiologists	www.anaesthesiologists.org

World Anaesthesia Society

Application Form

Are you a new member or renewing your subscription: New Renewing

If renewing, how do you usually pay: Visa Standing Order Cheque Cash

WAS aims to:

Support anaesthesia and the education of anaesthetists in the developing world through training, material and equipment.

Act as an advocate in dealings with governments and agencies involved in anaesthesia and resuscitation overseas.

Maintain a network of appropriately trained and experienced anaesthetists in order to assist members and advise those intending to work in the developing world.

The current subscription is £35 (or equivalent \$65, €50. If you have a UK bank account, please complete the attached standing order mandate and forward to your bank.

If you live outside the UK and are able to pay, please complete the credit card details on the form.

Name:

Address:

Hospital:

Telephone: work:

home:

mobile:

E-mail address:

Job Title:

Speciality:

Experience Oversea: Please list the countries where you have worked (other than your home country).

Please add: the places in those countries, the dates and the type of work you were engaged in (e.g. Disaster Relief, Support for Refugees, Area War/Conflict, Longer term medical missionary or secular relief agency work)

