

Report on The International School of Pediatric Anaesthesia and a brief visit to the University Children's Hospital Belgrade 7th to 9th May 2009

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I am very grateful for the opportunity to have visited Serbia, Belgrade, and The University Children's Hospital and to have presented at The International School of Pediatric Anesthesia. I thank Associate Prof Dr Dušica Simić for the invitation and for the warm hospitality extended to me by her and her colleagues at the Children's Hospital.

The goal of the School was to offer continuing medical education activities in pediatric anaesthesia and hopefully through that to improve the practice of paediatric anaesthesia. To achieve that a variety of formats were used from 20 minute lectures, workshops on infant intubation and interosseus injections and interactive case presentations. This is important, as it has been shown that in particular case based learning with discussion is more likely to improve knowledge and practice.

The content covered a wide area of anaesthetic practice with lecture topics from preoperative assessment through day stay to thoracic anaesthesia and on to postoperative analgesia. My sense was that this was designed to cover the needs of the specialist pediatric anaesthetist through to those generally trained anaesthetists whose practice includes care for some children. I believe that the meeting achieved this often difficult goal of matching the education needs of an audience with a wide spread of experience. One suggestion for future meetings would be to narrow the lecture content to reduce "fact fatigue" and allow a focus on the evidence base for particular aspects of practice.

The meeting was very well organized and there was ample opportunity for the delegates to share their ideas and experience over the well-catered breaks. Personally I very much enjoyed the opportunity to met and talk with fellow anaesthetists who work in a different environment from me but share common clinical and sometimes resource problems.

On the Thursday prior to the School Dr Schily and I visited the Belgrade Children's Hospital and where able to observe the operating theaters and briefly tour other areas of the hospital such the ICU and NICU. The hospital provides a wide range of anaesthesia-based services from day stay to pediatric cardiac anaesthesia, postoperative care and Intensive Care. It is clear that there are some resource issues in terms of equipment however this is somewhat compensated for by the enthusiasm and dedication of the anaesthetic staff.

It was interesting for me to observe some differences in anaesthetic practice at the Belgrade Children's Hospital. It's very common in most Australian children's hospitals for the parents to be present with the child during induction until they are "asleep". This practice is limited where there are no induction rooms separate but adjacent to the operating theatre. In Australian children's hospitals there is a strong culture to avoid needles in children and hence inhalational induction with Sevoflurane is more common than IV induction for elective cases with the IV inserted following induction.

In NSW Australia in 1993 a case of transmission of hepatitis C to four patients happened on the same list; the circle system had become contaminated by a prior patient who was HCV positive. Following this the use of viral filters was mandated on all anaesthesia breathing systems unless the whole system was single use. I noted that viral filters did not appear to be used on the circle systems in the small number of cases I observed at Belgrade Children's Hospital. There are resistance and dead space issues with filters but these have been well explored in the literature and are easily compensated for, I would recommend their use. There is a small additional cost per patient.

In terms of costs I noticed that the fresh gas flows that I saw being used would be considered quite high. In my hospital anaesthetic vapors are the biggest monthly drug expense for the anaesthetic service. Sevoflurane is an excellent but for us expensive agent a reduction in fresh gas flow is safe and can reduce costs and pollution, half the flow halves agent use. Lower flow requires end tidal monitoring of agent carbon dioxide and oxygen levels, as they are not as predictable as with high flows. This may require some investment in additional monitoring at all anaesthetising locations but this will be offset by a reduction in drug budget.

The laryngeal mask airway is now widely used in paediatric anaesthesia, much loved by anaesthetists as it allows a hands free approach and good end tidal gas monitoring. They do have a place and the single use products have come down in price considerably.

Most children anaesthetised in children's hospitals in Australia would receive a regional block as a part of their postoperative analgesia. This may vary from simple infiltration of local anaesthetic through nerve block to caudal or epidural. My impression was that regional anaesthesia was not a common practice at the Belgrade Children's Hospital.

I also noted the lack of a recovery area adjacent to the operating theatre; this is uncommon in more recently designed hospitals. I must say even with a recovery ward or Post Anaesthesia Care Unit (PACU) in my theatre complex I still leave small infants in theatre until I judge them to be well awake and safe to leave my care.

Please accept these observations as those obtained during a very brief visit. I was again extremely impressed by the quality of the work and care for their patients of the anaesthetists I met. Hopefully further exchanges can occur that lead to building strong relationships with other paediatric anaesthetists around the world whose aims are always better care for children.

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