

Peter Frykholm



Short CV

Date of birth	6 th August 1961
Nationality	Swedish
Medical registration	Sweden 12. 2. 1993
Specialist registration	Sweden Anaesthesiology and Intensive Care 30. 9. 1998
Diploma of the European Academy 1999 of Anaesthesiology	
PhD	2002
Associate Professor	2013

Present employment

My main work is as Consultant at the Department of Anaesthesiology and Intensive Care, Uppsala University Hospital, Sweden. I was head of the Paediatric Anaesthesia unit from 2013 to the beginning of 2016. Presently I hold a part time senior research position, which is combined with clinical work at the paediatric unit. Uppsala University Hospital is a tertiary referral centre covering about 2 million people from middle and northern Sweden. The hospital is also a national centre for e.g. craniosynostosis surgery, endocrine oncology, burns and pelvic trauma.

My key research interests are improving outcome and perioperative care related to paediatric anaesthesia, the optimisation of ventilation during anaesthesia and intensive care and the physiology and implementation of new modalities of oxygenation. I have also put some effort into airway management and vascular access, having co-authored national guidelines on these topics.

Previous studies and employment

I studied Medicine at Uppsala University from 1985 – 1991, going on to internship and residency at Gävle-Sandviken County Hospital. I moved back to Uppsala University Hospital in 2000, given the opportunity to subspecialise in paediatric anaesthesia. In parallel, I completed my thesis on Cerebral Ischaemia at the Department of Neuroscience.

In 2004 I very much enjoyed a clinical fellowship at PICU, Starship Children's Hospital, Auckland, New Zealand. I regularly do volunteer work as a paediatric anaesthetist for Operation Smile. Over the years, I have also worked part-time as a musician; presently on a very limited scale in world music. My new favourite instrument is a Viola da Gamba.

Membership, Committees, Scientific Societies, etc.

Member, Swedish Society for Anaesthesia and Intensive Care (SFAI)
Board member, SFAI subcommittee for ENT and airway anaesthesia
Member, SFAI task force on vascular access
Member, Safetots (www.safetots.org)
Executive board member, European Society for Paediatric Anaesthesia (ESPA)
Member, European Society for Anaesthesia (ESA)
Member, International Anesthesia Research Society (IARS)
Chairman, ESA task force on preoperative fasting guidelines

Publications

Frykholm, P, Andersson J, et al. A metabolic threshold demonstrated by PET in a MCAO-reperfusion primate model. *Acta Neurol Scand* 2000; 102: 18-26

Ledin-Eriksson S, Frykholm P et al. A comparison of three doses of sufentanil in combination with bupivacaine and adrenaline in continuous epidural analgesia during labour: *Acta Anaesthesiol Scand*. 2000 Sep;44(8):919-23.

Enblad P, Frykholm P et al. Middle cerebral artery occlusion (MCAO) and reperfusion in primates monitored by microdialysis and sequential PET. *Stroke* 2001; 32: 1574-1580

Frykholm P, Hillered L et al. The increase of interstitial glycerol reflects the degree of ischemic brain damage. A PET and microdialysis study in a MCA occlusion – reperfusion primate model. *J Neurol Neurosurg Psychiatry* 2001; 71: 455-461

Dissertation: Cerebral Ischemia studied with PET and Microdialysis. Uppsala 2002

Frykholm P, Andersson JLR, Långström B, Persson L, Enblad P. Early hemodynamic and metabolic disturbances after subarachnoid hemorrhage demonstrated by PET. *Acta Neurol Scand*. 2004 Jan;109(1):25-32

Frykholm P, Hillered L, Persson L, Valtysen J, Enblad P. Relationship between cerebral blood flow and oxygen metabolism, and extracellular glucose and lactate concentrations during middle cerebral artery occlusion and reperfusion: a microdialysis and positron emission tomography study in nonhuman primates. *J Neurosurg*. 2005 Jun;102(6):1076-84

Dellacá R , Andersson-Olerud M, Zannin E, Kostic P, Pompilio P, Hedenstierna G, Pedotti, A, Frykholm P. Lung recruitment assessed by total respiratory system input reactance. *Intensive Care Med*. 2009 35(12):2164-72.

Hedén L, von Essen, L, Frykholm P, Ljungman G. Low-Dose Oral Midazolam Reduces Fear and Distress During Needle Procedures in Children with Cancer. *Pediatr Blood Cancer*. 2009 15;53(7):1200-4

Kostic P, Pompilio P, Andersson-Olerud M, Zannin E, Hedenstierna G, Pedotti A, Frykholm P, Dellacá R. Peep optimization with forced oscillation technique (fot) reduces ventilation associated lung injury in saline lavage ali in pigs. *Crit Care*. 2011;15(3):R126.

Dellacà RL, Zannin E, Kostic P, Andersson Olerud M, Pompilio PP, Hedenstierna G, Pedotti A, Frykholm P. Optimisation of positive end-expiratory pressure by forced oscillation technique in a lavage model of acute lung injury. *Intensive Care Med*. 2011;37(6):1021-30.

Aliverti A, Kostic P, Lo Mauro M, Andersson-Olerud M, Pedotti A, Hedenstierna G, Dellaca R, Frykholm P. Effects of anaesthesia on thoraco-abdominal volume variations during spontaneous breathing and mechanical ventilation. *Acta Anaesthesiol Scand*. 2011;55(5):588-96.

Leiter R, Aliverti A, Priori R, Staun P, Lo Mauro A, Larsson A, Frykholm P. [Comparison of superimposed high-frequency jet ventilation with conventional jet ventilation for laryngeal surgery.](#) Br J Anaesth. 2012 Apr;108(4):690-7

Zannin E, Dellaca RL, Kostic P, Pompilio PP, Larsson A, Pedotti A, Hedenstierna G, Frykholm P. Crit Care. [Optimizing positive end-expiratory pressure by oscillatory mechanics minimizes tidal recruitment and distension: an experimental study in a lavage model of lung injury.](#) 2012 Nov 7;16(6):R217.

Svee A, Frykholm P, Linder A, Hakelius M, Skoog V, Nowinski D. [Early release of interalveolar synechiae under general anesthesia through fiberscopic nasal intubation.](#)

J Craniofac Surg. 2012 Jul;23(4):e299-302

Sütterlin R, Priori R, Larsson A, LoMauro A, Frykholm P, Aliverti A. Frequency Dependence of Lung Volume Changes During Superimposed High Frequency Jet Ventilation vs High Frequency Jet Ventilation. Br J Anaesth. 2014 112(1):141-9

Frykholm P, Pikwer A, Hammarskjöld F, Larsson AT, Lindgren S, Lindwall R, Taxbro K, Oberg F, Acosta S, Akeson J. [Clinical guidelines on central venous catheterisation.](#) Acta Anaesthesiol Scand. 2014 58(5):508-24.

Andersson H, Zarén B, Frykholm P. [Low incidence of pulmonary aspiration in children allowed intake of clear fluids until called to the operating suite.](#) Paediatr Anaesth. 2015 25(8): 770-7.

Sütterlin R, LoMauro A, Gandolfi S, Priori R, Frykholm P, Aliverti A, Larsson A. The Influence of Tracheal Obstruction on the Efficacy of Superimposed High Frequency Jet Ventilation and Single Frequency Jet Ventilation. Anesthesiology 2015 123(4): 799-809

Frykholm P, Hammarskjöld F. Vascular access – guidance for success. Anaesthesia 2016 (e-pub ahead of print)

Mogensen S, Lubenow N, Nilsson P, Engquist H, Knutsson F, Enblad P, Nowinski D, Frykholm P. An evaluation of the mixed pediatric unit for blood loss replacement in pediatric craniofacial surgery. Pediatric Anesthesia. 2017

Kostic P, LoMauro A, Larsson A, Hedenstierna G, Frykholm P, Aliverti A. Specific anesthesia-induced lung volume changes from induction to emergence: a pilot study. Acta Anaesthesiol Scand. 2018 Mar;62(3):282-292.

Andersson H, Hellström PM, Frykholm P. Introducing the 6-4-0 fasting regimen and the incidence of prolonged preoperative fasting in children. Paediatr Anaesth. 2018 Jan;28(1):46-

Frykholm P, Schindler E, Sümpelmann R, Walker R, Weiss M. Preoperative fasting guidelines in pediatric anesthesia: are we ready for a change? Br J Anaesth. 2018 Mar;120(3):469-474.

Andersson H, Schmitz A, Frykholm P. [Preoperative fasting guidelines in pediatric anesthesia: are we ready for a change?](#) 2018 Jun;31(3):342-348.

Regner D, Frykholm P. [Are the King LTS Laryngeal Tube and the Ambu AuraOnce Laryngeal Mask Useful Airway Adjuncts for Military Medics?](#) J Spec Oper Med. Summer 2018;18(2):90-96.

Andersson H, Frykholm P. [Kortare preoperativ fasta för barn bör övervägas - Europeisk rekommendation om en timmes fasta för klar dryck.](#) Lakartidningen. 2019 Feb 12;116.

Saastamoinen M, Larsson J, Frykholm P. [Checking mask ventilation before neuromuscular block: A nation-wide survey of anaesthetists' attitudes and thinking.](#) Acta Anaesthesiol Scand. 2019 Oct;63(9):1178-1183.

Andersson H, Frykholm P. [Gastric content assessed with gastric ultrasound in paediatric patients prescribed a light breakfast prior to general anaesthesia: A prospective observational study.](#) Paediatr Anaesth. 2019 Dec;29(12):1173-1178.

LoMauro A, Aliverti A, Frykholm P, Alberico D, Persico N, Boschetti G, DeBellis M, Briganti F, Nosotti M, Righi I. [Adaptation of lung, chest wall, and respiratory muscles during pregnancy: preparing for birth.](#) J Appl Physiol (1985). 2019 Dec 1;127(6):1640-1650.

Frykholm P. [Visual aids for pediatric airway management.](#) Paediatr Anaesth. 2019 Dec 16. doi: 10.1111