

# Peri-operative Anesthetic Innovations During Pediatric Cardiac Surgery.

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1. The Oldelft micromultiplane TEE phased array probe, with 48 elements, a center frequency of 7.5 Mhz, a tube diameter of 5.2 mm and head size of only 8.2–7 mm, provides good image quality (this thesis).
2. Intraoperative multiplane TEE is clearly beneficial for the simultaneous visualisation of the complex interaction of the right- and left ventricular function during left ventricular assist device (LVAD) implantation in children with end-stage cardiac failure (this thesis).
3. Intraoperative 3D echography permits comprehensive 3D viewing and measuring of cross sectional area of coarctation of the aorta providing useful additional information to support intraoperative decision-making (this thesis).
4. Alveolar Recruitment Strategy with PEEP of 8 cm H<sub>2</sub>O significantly decreases ventilation perfusion mismatch, shunting or both and improves the dynamic compliance of the respiratory system (C<sub>r<sub>s</sub></sub>), oxygenation and End-Expiratory Lung Volume in neonates after cardiac surgery for congenital heart disease (this thesis).
5. Conventional intraoperative high dose opioids (sufentanil 10mcg/kg) and withholding glucose in intravenous fluids permits a save and moderate glucose control during pediatric cardiac surgery for congenital heart disease (this thesis).
6. Intraoperative TEE monitoring is recommended in all cases of pediatric cardiac surgery.
7. The delivery of high quality medical care is the core business of the medical profession.
8. Inadequate teamwork increases the risk of peri-operative complications and mortality with a factor of 4.8. (Mazzocco et al. Am J Surg 2009; 197:678-685)
9. If physicians would read two articles per day out of the six million medical articles published annually, in one year, they would fall 82 centuries behind in their reading (Miser WF, J Am Board Fam Pract 1999; 21:315-33).
10. Clinical research also is quality management.
11. The difference between clinical investigation and the application of a new treatment is the controlled nature of research.