

# Propositions

accompanying the thesis

## **INNOVATIONS IN PEDIATRIC CARDIOPULMONARY BYPASS A CONTINUOUS PROCESS OF QUALITY IMPROVEMENT**

1. Cell salvage during pediatric cardiac surgery reduces the requirement for allogeneic blood transfusion. However, effective utilization of the cell salvage product depends on amount, timing of availability and approval within institutional guidelines. *(this thesis)*
2. Identification of the existing risk factors with regard to the customary perfusion protocols helps to tailor cardiopulmonary bypass to individual patient demand. *(this thesis)*
3. Consequent miniaturization of the perfusion circuit is a logical process towards asanguineous neonatal cardiopulmonary bypass. *(this thesis)*
4. In asanguineous cardiopulmonary bypass for neonates and small children hemodilutional anemia is an inevitable consequence that should be employed with caution. *(this thesis)*
5. Supplementation of human albumin during neonatal and infant cardiopulmonary bypass to control colloid oncotic pressure is associated with clinical benefit for the patient. *(this thesis)*
6. Widespread variations in pediatric cardiac surgery policy do not reflect a poor clinical practice but a lack of good evidence supporting clinical benefit.
7. Utility, safety, measurable benefit to the patient and cost are all relevant to decision-making process on medical device selection.
8. Collaborative benchmarking provides a platform for transparency and consistent performance between the system members.
9. Statistical literacy is a necessary precondition for an educated citizenship in a technological society.
10. Environmental management needs practical skills that are developed as an interdisciplinary knowledge based on ecological principles and human interactions.
11. Human and horse have been in a relationship for thousands of years; first as hunter and prey, then as master and slave, but nowadays partnership and harmony prevail. This has created major challenges to that relation with regard to traditional methods and attitudes in the areas of use, management and training.

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