ANESTHESIA INFORMATION SYSTEMS (AIMS): WHAT DOES THE FUTURE HOLD?

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Anesthesia Information Systems have been around for more than 20 years. In the last couple of years there has been a sudden surge in interest and rate of implementation of AIMS. Today clinicians want AIMS to do more than just be a recording system in the operating room and replace the hand written record. So what can AIMS do for you today?

AIMS has improved over the last decade and is very good at capturing data from our clinical monitors. The issue of free text entry continues to be a problem as this data is hard to analyze. AIMS data now forms the corner stone of billing and research. The ultimate goals of AIMS are improving patient outcomes and improving productivity of the clinicians.

At The Children's Hospital of Philadelphia, we have the largest pediatric anesthesia data warehouse containing more than 200,000 anesthetic records. The classic example of using data for improving patient safety comes from the Rapacuronium study. Using the data from this data warehouse to illustrate a rapid increase in adverse effects helped to pull this drug off the market. We conduct active research using AIMS data to improve patient outcomes, especially in patients undergoing craniofacial surgery, spine surgery, and cardiac surgery. There is movement at the national level in which data exchange is planned for research. One such example is the MPOG research group based out of University of Michigan.

Improvement of financial returns appears to be an integral part of the AIMS systems in the United States today. Incorporating the ICD9 and CPT codes help the practitioner to complete and send away the data for collection immediately after an anesthetic procedure is done. departments creating productivity models for practitioners are also using the data.

Despite AIMS being in use for two decades, we are still in the infancy stage of developing models that help with decision support. Simple decision support can be easily incorporated into the AIMS systems. A good example of this is antibiotic dosing and re-dosing regimens. During the next few years a rapid increase will be seen in research and development of complex models in this area. Todaywe seeasudden surgeinAIMS implementation.

AIMS will continue to advance in data utilization to improve patient outcomes and productivity of personnel.