

# St. Jude Medical Center



## **St. Jude Medical Center Goes Paperless, Improving Vigilance, Productivity and Reducing Redundancy**

Established nearly 50 years ago, St. Jude Medical Center, a faith-based, non-profit facility, in Fullerton, California, has grown into one of Southern California's most respected and technologically advanced hospitals. Recognized worldwide for its success in areas from cardiology to rehabilitation, the hospital's physicians offer one of the nation's highest board certification rates, and continually pioneer new and higher standards of care.

## Increased Effectiveness: The Paperless Operating Room

In 2007, St. Jude Medical Center's surgical services group made the decision to move completely from paper anesthesia records to an automated anesthesia information system in the operating room (OR) suite. Driving this decision was the need to streamline the anesthesia process and administration, help promote quality of patient care, fully document multiple data inputs (pulse, blood pressure, etc.) from medical devices, simultaneously, and provide the hospital's quality assurance department with sufficient data to meet regulatory requirements. Picis® Anesthesia Manager was chosen for its ability to meet these requirements and for its flexible design of the anesthesia record. Working with Picis and the hospital IT department, five group members configured the software to fit their practice.

The decision to go digital was met with some skepticism by several anesthesiologists. They voiced concerns that erroneous vital sign values would be entered into the record whenever a surgeon leaned on a blood pressure cuff or a pulse oximeter was dislodged. They also thought it would prove to be a distraction to patient care. Regardless, the team forged ahead with the development phase, followed by a three month trial and experimentation period. The team selected a day when everyone would move from the paper based anesthesia process to the Picis automated anesthesia information system – the anesthesiologists have never looked back since that go live date.

## Optimized Anesthesia Management

"The results with Anesthesia Manager have been dramatic," says John MacCarthy, MD, Co-Director of Surgical Services, at St. Jude. "None of my colleagues would want to return to a paper record because we now realize the many benefits of computerized anesthesia charting. No one on our team has to sift through disorganized paper charts to review a patient's previous preoperative record. With the ability to copy portions of a patient's previous record, a great deal of time is saved and redundancy is eliminated. This is particularly helpful when working with patients with difficult airways, allergies or chronic medical conditions."

Anesthesia Manager also enables physicians to review electronic records for patients in the post anesthesia care unit (PACU) and responds to issues or nurses' questions quickly while they are still working in the OR. Conversely, anesthesiologists can review the next patient's medical history prepared by preoperative nurses while working on the previous case. Having one preoperative patient record eliminates redundancy and allows for faster turn-over times.

St. Jude also has multiple clinically-relevant emergency protocols immediately available to OR clinicians such as the 'lipid rescue protocol,' insulin infusion protocols, Centers for Medicare & Medicaid Services (CMS) guidelines on antibiotic use, standards for regional anesthesia and standardized transesophageal echocardiography (TEE) documentation.

## Quick Profile

### St. Jude Medical Center

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#### Institution profile:

359-bed medical center with  
11 operating rooms

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#### Key business/clinical drivers:

Eliminate paper from the perioperative suite, and provide a complete, legible and defensible anesthesia record of each case. Help promote quality of patient care and provide data required by the Surgical Care Improvement Project (SCIP). Increase productivity and fully utilize staff resources

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#### Picis applications:

Picis Perioperative Suite modules:  
Anesthesia Manager, OR Manager,  
Patient Tracking, Preop Manager  
and PACU Manager

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#### Interoperability:

Meditech with the following  
integration points: ADT, lab, materials  
management; bi-directional HL7  
interface to McKesson Pathways

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#### Results:

- Reduced redundancy of patient records
- Streamlined OR patient turnover times
- Emergency protocols available online
- Multiple data inputs captured automatically
- Complete legible record of every OR case
- Compliance with SCIP requirements for reporting
- Improved contract rates with insurers

### Improved Documentation and Compliance

Documentation of all types is now available to OR personnel as well as accessible to other groups within St. Jude's. "We have the ability to simultaneously document complete multiple data inputs, such as continuous cardiac output, systemic vascular resistance, entropy values and cerebral oximetry values," continues MacCarthy. "We spend time analyzing and acting on the data gathered rather than wasting time recording it."

Anesthesia Manager enables physicians to quickly document follow-up notes for those patients discharged with continuous nerve block catheters and easily document PACU orders. In addition, anesthesia utilization data is now swiftly gathered and used to support stipend requests in the case of underutilized full time employees or in the case of a high level of utilization to justify increased manpower.

St. Jude uses the information system to provide a complete legible record of every case that passes through the operating rooms. "This record is much easier to defend in a court of law than the majority of written records, previously used, often without success," says MacCarthy. "The data in the record is not corrected or modified in any way and only occasionally does the hospital find it necessary to provide a memo explaining aberrant blood pressure, heart rate or saturation of peripheral oxygen values. A complete, unaltered electronic record is much more defensible, even in a poor outcome."

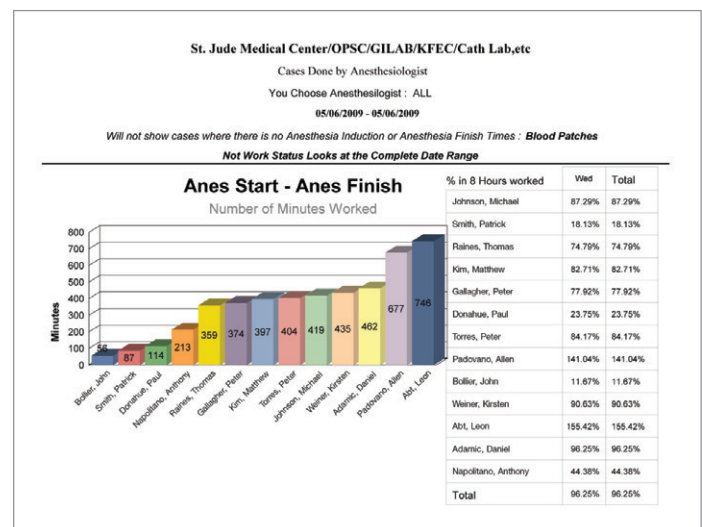
Information collected in Anesthesia Manager also provides the quality assurance department with parameters that are required by the Surgical Care Improvement Project (SCIP), such as time from antibiotic dose to incision, documentation of appropriate sterile techniques, use of beta-blockers, insulin use, glucose levels and use of intra-operative warming devices. This data can be used to justify staffing based upon patient acuity levels and can improve contract rates with insurers who are willing to compensate St. Jude for proof of improved quality of care.

Anesthesia Manager also enables physicians to track the progress of cases and determine who should be assigned add-on cases, without making multiple telephone calls or pages, thus, reducing the work load and distractions for the OR coordinator.

Finally, St. Jude implemented an electronic billing process that transfers data from the Anesthesia Manager record to Anesthesia Business Consultants, eliminating the need for staff to carry around patient charge tickets. This process also increased collections and improved accounts receivable aging. Patient charges are immediately handled and duplication of information, already residing in the anesthesia record, is avoided. Standardized insurance or Medicare claims are also completed automatically using data entered on the anesthesia record, thereby improving efficiency, speeding claims handling, avoiding missed cases and improving cash flow significantly, from surgery to bill submission.

"With Anesthesia Manager, providing anesthesia has gone from being analogous to flying a plane to flying a space shuttle," MacCarthy concludes.

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## Further Development

St. Jude is collaborating with Picis to integrate Picis Preop Manager with a web-based system to help streamline the preoperative process. This will enable patients to easily initiate their own records and enter their medications and prior surgical procedures via the web making them available in PreOp Manager.

Nurses will then be able to call up these records in Preop Manager at the time of patient admissions, reducing the amount of data entry required to prescreen patients. Anesthesiologists will also have access to their patients' prior anesthesia records, which will enable them to better plan their anesthetic techniques in advance of meeting their patients.



### About Picis Clinical Solutions

Picis Clinical Solutions (Picis) is a global provider of clinical information solutions that automate the entire perioperative experience with one continuous patient record, from preop to anesthesia through PACU. Picis continues to focus and specialize the integrated suite of solutions in life-critical areas of the hospital where the patients are the most vulnerable, the care process is the most complex, and an increasing majority of hospital costs and potential revenue are concentrated. The software enables rapid, sustained delivery of clinical documentation, and financial and operational results. From department performance to patient case costing, hospitals benefit from the ability to interact with the data needed to help clinicians improve patient care, engagement and hospital revenue goals. Picis Clinical Solutions, a wholly owned subsidiary of N. Harris Computer Corporation, is headquartered in Wakefield, Massachusetts with licensed systems for use at more than 400 hospitals worldwide.

For more information about Picis Clinical Solutions, visit [picis.com](https://www.picis.com)

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The Quality Management System at Picis Clinical Solutions is certified in accordance with EN ISO 13485 and Annex II (excluding 4) of the Council Directive 93/42/EEC on Medical Devices.

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