The Smart Anesthesia Manager - SAM™

The race is on! Competitive advantage for Anesthesia Information Management Systems clearly lies with those who can maximize their return on investment.

**The SAM™ Approach**

In recent years, there has been considerable interest in incorporating Anesthesia Information Management Systems (AIMS) in operating rooms nationwide. However, the AIMS adoption rate is not meeting expectations, in part due to sub-optimal or unclear return on investment of these expensive systems.

Our solution, Smart Anesthesia Manager - SAM, provides real-time decision support capability to AIMS, exponentially improving implementation. The result is a significantly improved AIMS product with higher return on investment in patient safety, quality of care, revenue capture and OR efficiency.

**Benefits**

- **Patient Safety**: Reduced gaps in blood pressure monitoring, better blood pressure management, alerts on abnormal labs, emergency protocols reference
- **Quality of Care**: Improved antibiotic dosages, beta-blocker management, glucose control and post-operative nausea management.
- **Billing and compliance**: More compliant records, additional billing capture of invasive procedures, anesthesia CPT coding feature
- **OR Efficiency**: Wastage reduction of inhalation agents, simplified OR paging feature

**The SAM™ results**: SAM is a proven technology tested in multiple hospitals with over 50,000 uses. The improvements with SAM are published in Anesthesia & Analgesia 2010, Surgical Infections 2011 and in Anesthesiology News.

**SAM™ Difference**

- **Antibiotics**: - 99% Vs 85% compliance with/without SAM
- **Beta-blockers**: - 99% Vs 62% compliance with/without SAM
- **Compliance/Billing**: - Additional 1,200 compliant records/year
  - Additional revenue of $140K/year for invasive line placements
- **Inhalation agents**: - Reduction in inhalation agent usage ($150K/year)
- **Blood pressure**: - 6X reduction in > 15 min gaps in cuff blood pressure measurement
  - 8 fewer incidences of unsafe blood pressure conditions per week
SAM: Specifications and Capabilities

SAM provides a wide array of features to optimize AIMS so that the return on investment is maximized. The primary component of SAM is a real-time decision support engine that acquires AIMS data in real-time and notifies users concerning issues related to patient safety, quality of care, billing, billing and waste reduction. Additionally, SAM provides several point of care tools for better revenue capture and OR efficiency. The main features of SAM are highlighted below.

<table>
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<th>Application</th>
<th>Technology</th>
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<td>• AIMS optimizer</td>
<td>• SAM central server</td>
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<td>• Real-time decision support and notification</td>
<td>• SAM client module</td>
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<td>• Point of care Anesthesia codes</td>
<td>• Rules builder module</td>
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<td>• Emergency protocol reference</td>
<td>• Shares hardware and interfaces with AIMS</td>
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<td>• Operating room paging</td>
<td>• Standard SAM data elements</td>
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## Real-time decision support

### Patient safety
- Warn Cuff Blood pressure gaps
- Notify of Hypertension and on-going phenylephrine infusion
- Notify of Hypotension and inhalation agent MAC
- Report on BIS and EMG
- Notify of abnormal labs

### Quality of care
- Notification for antibiotic initial dose and redosing
- Initiation of Beta-blocker and Temperature protocols
- Compliance to PONV protocol
- Better glucose management

### Compliance
- Notify of improper event sequence
- Notification for wrong or missing attestations

### Billing
- Revenue capture of invasive line procedures
- Revenue capture of facilities charges
- Perform Anesthesia CPT and ICD-9 check
- Capture miscellaneous billing elements

### Waste Reduction
- Reduce Inhalation agent and medication usage

## Rules Builder

- Versatile, sophisticated & unlimited rules
- Easy to build
- Relevant to Surgery and Anesthesia
- Expandable library of logic functions
- Multi-layered rules
- Iterative rules building
- Message constructor
- Message prioritization
- Message type
- Message frequency
- Standard XML rule structure

## Notification

- Pop-up window
- Text paging
- Email

## Additional Features

- Easy to use Anesthesia CPT code search
- Standard text paging feature for OR personnel
- Emergency protocols for quick clinician reference