Today’s Presenters

Dr. Margaret McEvoy
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Santa Rosa Memorial Hospital

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Intralign Health LLC

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Center for Bone & Joint Health
Santa Rosa Memorial Hospital
Webinar Agenda

- Nature of healthcare challenges
- What is “Operationalizing Value-Based Care Delivery?”
- Santa Rosa Memorial Project Overview
- Discussion
Healthcare is moving to a “Value-Based Care” model

A core strategic focus of the Affordable Care Act is to:

Change the way hospitals are paid, moving away from a reimbursement model that rewards procedures to one that rewards quality and outcomes.
The “Do More, Bill More” era is being replaced with The “No Outcome, No Income” Era

Value-Based Model Characteristics
Comprehensive Joint Replacement is the initial “warning shot”

**INCREASED HOSPITAL ACCOUNTABILITY**
Hospitals will be challenged to manage the services & quality across many different providers to meet CJR goals.

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**BETTER CARE**
Coordinated, higher quality

**HEALTHIER PEOPLE**
Improved coordination of care

**SMARTER $$**
Holding hospitals accountable

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**INPATIENT**
55% of Hospital $$

**POST-ACUTE**
45% of Hospital $$
Putting hospitals in control of the episode
Developing & managing optimal care pathways is key to success

- Outcomes/Cost risk assessment & triage
- Optimize health
- Standardized care paths based on risk assessment
- Education
- Discharge planning
- Patient reported outcomes (PRO)

- Implant costs
- Labor/use of SFAs
- Optimize OR time, space, resources
- Evidence-based best practices
- Rep management/supply chain

- Manage high-risk patients
- Contract with optimal PAC partners/manage utilization
- Discharge planning coordination
- Education for patients and care givers

- Telemedicine
- Readmission control
- PRO measurement
- Data sharing with partners
- Gainsharing/alignment payments
"Hospitals and health systems have built care processes and policies around the current regulatory payment structures, and these systems will have to be changed if they are to achieve success in the CCJR program. This is no small task; it will require significant investments of time, effort and finances."

September 8, 2015 – AHA’s Response to CMS Proposed Rule
Where Do Hospitals Begin?

By taking the steps **TODAY** to start the journey toward **OPERATIONALIZING VALUE-BASED CARE DELIVERY**
What is Operationalizing Value-Based Care Delivery?
Everyone must understand how their day-to-day activities impact performance

Greater quality and care in the episode = optimized payments

Lower quality and care = reduced payments
Hospitals must advance through the continuum of care to optimize the episode.

**Status quo**
- No optimization

**Specialized OR support**
- Highly qualified clinical support staff

**Improved processes & patient flow**
- Efficiency & Effectiveness

**Actionable data & technology**
- The right metrics
- The right technology
- Aligned & supporting goals

**Aligned care network**
- Optimize process, improve quality, and reduce cost along the ENTIRE care continuum
The Path to Value-Based Care is Alignment & Integration
Controlling the Episode of Care

Hospitals must take a step back, strategize and then implement…

<table>
<thead>
<tr>
<th>1</th>
<th>Strategic Roadmap Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Alignment</td>
</tr>
<tr>
<td>3</td>
<td>Implement Strategy</td>
</tr>
<tr>
<td>4</td>
<td>Integrate Technology</td>
</tr>
</tbody>
</table>

- **1** **Strategic Roadmap Development**: Translating complicated healthcare reform into manageable and understandable components
- **2** **Alignment**: Aligning the hospital’s strategic plan to maximize value-based care objectives
- **3** **Implement Strategy**: Translating the strategic plan into an actionable deployment plan: What are the Critical-to-Success indicators/actions?
- **4** **Integrate Technology**: Integrating performance enhancement tools & services and training staff in order to enable effective execution of the strategic deployment plan

…All while looking at through the lens of the patient.
A Journey with Santa Rosa Memorial Hospital to Operationalize Value-Based Care Delivery

St. Joseph Health
Santa Rosa Memorial • Petaluma Valley
Case Study: Santa Rosa Memorial

- St. Joseph Health System’s largest Northern California ministry
- 338 bed Level II Trauma Center located 60 miles north of San Francisco
- 2014 initiative: Become a Total Joint Arthroplasty Center of Excellence
- Challenges:
  - Increasing competition for patients from local providers
  - Concern over internal operational challenges, including OR capacity
  - Cost pressures across the episode created by CMS’s expansion of value-based payment models
Santa Rosa Memorial Hospital leadership and the medical staff recognized the need to solve ongoing operational challenges.

LEADERSHIP COMMUNICATION EXCERPT:
St. Joseph Health contracted with Intralign to partner with SRMH and the Medical Staff. Our team’s commitment is to leverage Intralign’s portfolio to support assessment, data analysis and measurement, operational and quality improvement, and the on-going commitment to deliver high-quality, patient-centered care.
We mapped and assessed the patient’s journey to identify daily operational challenges that were compromising performance...
Every approach is comprehensive – following the patient journey

- Risk assessment and triage
- Physician alignment & governance
- Aligned & integrated post-acute care partner network
- Metric transparency and accountability
Every approach is involves a Critical-to-Success Map

- Effective Data Mgmt. & Governance
- Patient Centered Care
- Appropriate/Optimized Staffing
- Efficiency, Quality/Safety
- Regulatory Awareness & Alignment
- Commitment to a Continuous Improvement Culture
- Multi-Disciplinary Governance Structure
- Commitment to Just and Safe Culture

Operational
- Perioperative Excellence

Cultural
SRM Path

- Assess the perioperative process
- ID projects and prioritize efforts

Initial Focus – examples

- **Total Joint program Improvements**
  > Discharge
- **Perioperative Improvements**
  > Schedule/Block Management
Engage Staff & Physicians
Understand the Overall Process – The Value Stream
Pre-Admission Testing/ EASE

Positives vs. Performance Gaps/ Opportunities

- Protocol modifications have reduced the time to collect patient data for EASE RN to review (reducing patient wait time as a result).
- Protocol is patient condition “blind” /not based on health history and surgery type.
- Paper form format mirrors the Meditech on-line entry field (more work to be done in this area).
- Anesthesia has helped develop protocols to eliminate unnecessary testing (i.e. EKG good for 1 year. Labs 3 months).
- Disconnect with Surgeon Offices/Rework & Defects: Surgeon’s office does not understand the data needed by the hospital. Not providing complete information, orders not always complete. Outside test results not available on review, causes delays, overproduction. Scanned rx orders are not sustaining in Meditech (rescanned DOS).
- Improve resource planning: i.e. staffing hours are disconnected—RN’s work 4 days, stay until 5:30 or 6:30 and lab closes at 5:15pm.
- Process defects: Charts are being prepared at the last minute (same day or 1 day out), information is missing or incorrect. No translator available to patients after consent has been signed.
- Patient satisfaction/Flow/Safety: Most patients are not actually seen in person. Long patient wait times (15-45 min for RN to review packet and for labs.EKG). Process steps are disconnected, difficult to gauge work load (appts would help). High risk patients or those having high risk surgery are not seen in person by a nurse nor seen by anesthesiologist.
- These joint patients should be pre tested 4 weeks prior to surgery in order to improve health status i.e. BS, anemia, UTIs, mobility. “Surgical Home” and pre-op.

Success Drivers| Operational
## What can we do to Operationalize Value?

### Projects | Patient Satisfaction & Flow

### Project Impact on Success Drivers

<table>
<thead>
<tr>
<th>Effective Data Mgmt &amp; Governance</th>
<th>Patient Centered Care</th>
<th>Appropriate Optimized Staffing</th>
<th>Efficiency, Quality, and Safety Focus</th>
<th>Financial Viability</th>
<th>Continuous Improvement Culture</th>
<th>Multi-Disciplinary Governance Structure</th>
<th>Commitment to a Just and Safe Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Inpatient Discharge Process</td>
<td>●</td>
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<tr>
<td>Improve Patient Experience - PreOp Process (Registration &amp; EASE)</td>
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<td>Maintenance Equip Improve</td>
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<tr>
<td>Staff Resource Planning</td>
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People + Process + Technology

• Inpatient Discharge

> A value-based care connection
Inpatient Discharge Process: What drives success?

- Safe, Efficient and Patient Centered Discharge Process
  - Standard Work & Accountability
  - Discharge Planning
  - Work Load Balance
  - Patients & Family Involved in Discharge / Overall Patient Satisfaction
and...How to Measure it.

- Start the planning in the surgeons office
- 90% of multidisciplinary huddles have full participation
- Patients are informed of assigned discharge slots 24 hours prior to discharge
- 100% of patients have prescriptions filled pre-operatively (non narcotic), 100% narcotic orders done with discharge order
  - 90% DC compliance: 50% by 11AM, 70% by 12PM, 90% by 1PM
  - SNF Patients with insurance, 90% verified within 24h of discharge
  - All patients: 100% insurance verified upon admission
  - 95% of rooms are cleared properly (the first time) so Housekeeping can clean
  - 100% of Physical Therapy treatment are complete 30 min+ prior to discharge
  - 100% of home care services referrals are made within 24 hrs of admit
  - 95% of durable medical equipment (DME) is delivered day of discharge to patient’s home
  - 100% of final labs complete and available by 7am day of discharge
Discharge Scenario | Meet Lucile

TJA Patient going home with services

- Walker dependent prior to surgery
- Extensive medication list, requires nebulizer and oxygen
- Several friends have had surgery at SRMH
- Returning to home with adult son & home services

Lucile, 81
# Discharge Scenario | Lucile’s Journey

**Discharged home with services**

Total Time: 7 h and 40 minutes  
Actual Work Time: 68 minutes

- PA writes paper order  
- No secretary  
- Time lag before Lead RN enters (paper) in Meditech  
- RN aware begins patient education and charts  
- Calls patient’s son for ride

- Secretary printing labels, reprint ed mat’l  
- Krames (patient education) not part of standard work – printing  
- Lead changes dressing/ Glue sticks to dressing, opening wound. **Calls PA but must wait**

- Waiting for PA to see wound  
- Patient tells son to go home after 2 hour wait  
- No standard work regarding dressing the patient  
- Son recalled to pickup

<table>
<thead>
<tr>
<th>Time</th>
<th>MD</th>
<th>PA</th>
<th>Lead RN</th>
<th>PT</th>
<th>RN</th>
<th>OT</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00</td>
<td>Round</td>
<td>Write Order</td>
<td>Enter Order</td>
<td>Pt Ed</td>
<td>Pt Ed</td>
<td>Pt Ed</td>
</tr>
<tr>
<td>8:00</td>
<td></td>
<td></td>
<td>Attempt dressing change</td>
<td>Family arrivers &amp; pt exit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00</td>
<td></td>
<td></td>
<td>D/C paperwork &amp; sign offs</td>
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<td></td>
</tr>
<tr>
<td>10:00</td>
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<td>11:00</td>
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<tr>
<td>12:00</td>
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<tr>
<td>13:00</td>
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<tr>
<td>14:00</td>
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<td></td>
<td></td>
<td>Fix dressing</td>
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<td>15:00</td>
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<tr>
<td>16:00</td>
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</tbody>
</table>

- Total Time: 7 h and 40 minutes  
- Actual Work Time: 68 minutes
Building an Efficient Schedule/Block Process
Schedule & Block Management

Present State

- Staffing limitations
- Perspective of “physical space constraint”
- Inefficient processes around scheduling, block utilization, and emergent case
- Dissatisfaction among surgeons and staff
- Fragmented Governance

SRMH leadership & medical staff partnered with Intralign to plans to immediately improve surgical throughput including:

- Main, ASC and ASI OR room optimization
- OR schedule smoothing
- Efficient block utilization
- Elective case interruption reductions
A Holistic Approach
Improve existing processes and technology

- Identified surgery system issues that caused waste and inefficiency, a few examples:
  - Incorrectly assigning block in the system
  - Using incorrect surgery designations (i.e. wrong interpretation of emergent)
  - Scheduling incorrect surgery time (usually understated)

- Addressed process variation
  - For example: Created standard work and related training for the 3 surgery schedulers who all interpreted the scheduling rules differently

- A substantial re-write of policy and procedures
  - Aligned with strategy, goals/objectives
  - Brought clarity where there was ambiguity

- Improved Governance
  - Focus on goals/objectives vs. individual agendas
  - Eliminated "back door" politicking
**Applied needed technology**

**Surgeon Run Activity – Breakout**

| Date       | Day of Week | Start Time | End Time | 7:00 | 8:00 | 9:00 | 10:00 | 11:00 | 12:00 | 13:00 | 14:00 | 15:00 | 16:00 | 17:00 | 18:00 | 19:00 | 20:00 |
|------------|-------------|------------|----------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 10/07/15   | Wednesday   | 07:11      | 18:28    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 10/28/15   | Wednesday   | 07:22      | 15:11    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 11/04/15   | Wednesday   | 07:23      | 18:36    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 11/11/15   | Wednesday   | 07:19      | 16:34    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 12/02/15   | Wednesday   | 07:14      | 16:33    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 12/09/15   | Wednesday   | 07:15      | 16:12    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 12/16/15   | Wednesday   | 07:26      | 17:23    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 12/23/15   | Wednesday   | 07:23      | 16:25    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 12/30/15   | Wednesday   | 07:23      | 16:21    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 01/06/16   | Wednesday   | 07:23      | 16:50    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 01/13/16   | Wednesday   | 07:31      | 15:38    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 01/20/16   | Wednesday   | 07:23      | 16:38    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 02/03/16   | Wednesday   | 07:16      | 16:32    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 02/10/16   | Wednesday   | 07:12      | 16:39    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 02/17/16   | Wednesday   | 07:17      | 17:01    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 03/02/16   | Wednesday   | 07:25      | 16:18    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 03/09/16   | Wednesday   | 07:18      | 16:12    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 03/16/16   | Wednesday   | 07:23      | 16:25    |      |      |      |       |       |       |       |       |       |       |       |       |       |
| 03/23/16   | Wednesday   | 07:25      | 15:49    |      |      |      |       |       |       |       |       |       |       |       |       |       |

- **PREP/WAKE**
- **TURNOVER/GAP**
- **SURGERY-OUTPATIENT**
- **SURGERY-INPATIENT**
Applied needed technology

Block Utilization
## Schedule/Block Optimization

<table>
<thead>
<tr>
<th>Problems (Before Project Start)</th>
<th>After Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule/Block data was difficult to obtain and unreliable</td>
<td>The Block Manager tool makes it easy to pull data and complete Block and Utilization analysis</td>
</tr>
<tr>
<td>Surgeons had little input in the process and did not believe the data</td>
<td>Heavy surgeon involvement in the process and more confidence in the data. There is still work to be done but it is much better</td>
</tr>
<tr>
<td>OR policy not aligned with best practice</td>
<td>OR policy was rewritten – aligns with best practice; makes “rules” clear</td>
</tr>
<tr>
<td>Block Management was not effective and inconsistent</td>
<td>Block Manager tool and policy allows PeriOp Exec Committee to manage block effectively. EMT has aligned with the committee. Decisions are now made through appropriate channels</td>
</tr>
<tr>
<td>Lack of overall Transparency</td>
<td>The transparency level is considerably elevated. There is more dialog, more reliance on data, and more teamwork.</td>
</tr>
</tbody>
</table>

As a result of this project, Santa Rosa Memorial Hospital achieved the following results:

- 213 more block hours/month (+34%)
- 315 more block hours/month for urgent/emergent
- $17,000/month savings on OR staffing alone
- $5M+ capital cost savings
Sustaining Change
Total Joint Manager (TJM) Main Dashboards - Overview

Key Performance Categories and Sample Measures

**Patient Demographics**
- THA/TKA Procedure Volume
- Avg. Age, Age Distribution, Sex Distribution, Ethnicity Distribution
- Avg. Charlson Score
- ASA Category Distribution
- Payer Mix
- DRG Mix
- Surgeon Mix, Others

**Quality and Outcomes**
- Composite Event Rate
- Joint/Wound Infection Rate
- DVT/PE Rate
- Mechanical Complication Rate
- ALOS
- % Admitted to ICU
- % Discharged to Home/Self Care
- % with Spinal Anesthesia, Others

**Financial Impact**
- Avg. THA/TJA Cost
- Avg. THA/TJA Reimbursement
- Avg. THA/TKA Net Revenue
- THA/TJA Procedure Volume
- Supplies, implantables Costs, Others

**Operational Efficiency**
- Intralign Efficiency Score
- Contribution Margin per OR Hour
- Avg. Case Duration
- Avg. Case Duration Prediction Bias
- Avg. Turnover Time, Others
Complex data from multiple sources presented in a format that is uncluttered and easy to understand

Access across multiple platforms
TJ Manager allows you to zoom in on metrics and look at details in a few seconds

### Room Turnover

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Turnover Time</td>
<td>25.0</td>
</tr>
<tr>
<td>Mean Room Ready</td>
<td>44.9</td>
</tr>
<tr>
<td>Mean PACU Transition Time</td>
<td>25.0</td>
</tr>
<tr>
<td>Mean Start Tardiness</td>
<td>25.0</td>
</tr>
</tbody>
</table>

### Operational Efficiency

#### Physician | Procedure Type

<table>
<thead>
<tr>
<th>Physician</th>
<th>Procedure Type</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACQUAVELLA - LIGHTFOOT</td>
<td>TKA - Primary</td>
<td>27.0</td>
</tr>
<tr>
<td>ADVENT - JENNIFER</td>
<td>Bilateral / Multiple TJA</td>
<td>31.4</td>
</tr>
<tr>
<td></td>
<td>TKA - Primary</td>
<td>31.6</td>
</tr>
<tr>
<td></td>
<td>TKA - Revision</td>
<td>31.0</td>
</tr>
<tr>
<td>AUDA - LARRY</td>
<td>Bilateral / Multiple TJA</td>
<td>31.2</td>
</tr>
<tr>
<td></td>
<td>THA - Primary</td>
<td>32.0</td>
</tr>
<tr>
<td></td>
<td>THA - Revision</td>
<td>31.6</td>
</tr>
<tr>
<td></td>
<td>TKA - Primary</td>
<td>31.0</td>
</tr>
<tr>
<td></td>
<td>TKA - Revision</td>
<td>28.0</td>
</tr>
<tr>
<td>BARABAS - RONALD</td>
<td>THA - Primary</td>
<td>31.6</td>
</tr>
<tr>
<td></td>
<td>TKA - Primary</td>
<td>29.4</td>
</tr>
<tr>
<td>BARTON - DREW</td>
<td>Bilateral / Multiple TJA</td>
<td>31.0</td>
</tr>
<tr>
<td></td>
<td>THA - Primary</td>
<td>30.7</td>
</tr>
</tbody>
</table>

#### Comparison View

Select one or more item(s) below to filter the time series at right.

### Boxplot

- Date: 12/31/2011
- Percentiles: 25.7%, 50.0%, 75.3%
- Percentage: 2.3%, 2.8%
- Trend: Increase, Steady, Decrease
RESULTS – SRM is prepared to successfully navigate the value-based payment environment

- Initial assessment identified immediate savings of $500K and projects with ROI exceeding $3M
  - $1.5M validated performance improvement in Peri-Op with additional dollars accumulating monthly
  - TJA and orthopedic surgical volume is on the rise
  - OR efficiency is improving
- Intra-operative support program generated savings exceeding $150,000 during the first 12 months of the program with savings continuing at an average of $20,000 per month
- Schedule/Block Program
  - High volume surgeons have the block they need
  - Front-line managers have concise and credible analytics
  - Alignment between executive leadership, medical staff, and clinicians has strengthened
  - Regular staff overtime costs continue to fall and surgeon and OR staff satisfaction is up
Operationalizing Value-Based Care is a Journey

“We are what we repeatedly do. Excellence, then, is not an act, but a habit.”

– Aristotle