**Problem Statement**
Orthopaedic product line mortality exceeded the University Healthcare Consortium (UHC) data findings.

**Intervention**
- Interdisciplinary group met to discuss mortality and morbidity issues in the Orthopaedic population
- Hospitalists, Anesthesiology, Orthopaedic Surgeons, and nursing contributed
- Hospitalist Co-Management Team was initiated as a result of interdisciplinary discussion

**Project Aim Statement**
- Improve consistency and quality of preoperative evaluation, preparation, and risk assessment
- Consistent medical management of patients with co-morbidities
- Timely decision making
- Improve health outcomes (mortality and morbidity) as measured by UHC data from 2006 Quarter 4 to 2008 Quarter 4

**Action**
- Orthopaedic-Hospitalist Co-Management team was initiated, covering joint replacement, Hip fracture, and Foot/Ankle patients
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- Elective patients were processed by the Orthopaedic Nurse Practitioners and referred to the co-management team

**Analysis**
- Following implementation of the Co-Management team, product line mortality dropped significantly from 1.0% to 0.33%
- The Co-Management Team was effective in reducing mortality and improving patient outcomes
- Loyola is now rated in the top 10 UHC hospitals for orthopaedic mortality

**Additional Benefits**
- The percentage of Orthopaedic patients receiving ICU care decreased
- Readmission rate improved
- Inpatient hospital actual costs were significantly and consistently below expected costs, the program did not lead to increased hospital cost

**Next Steps**
- Continue monitoring outcome
- Separate data based on subspecialty
- Expand program to all Orthopaedic patients with complex medical needs that are admitted to the hospital, on the Orthopaedic service

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**Orthopaedic and Hospitalist Co-Management Program**

Terry Light, MD, Timothy Rapp, MD, Hobie Summers, MD, Paul Goekski, MD, Vicky Davidson-Bell, RN, Edward Garza, MD, Theresa Kristopaitis, MD, Rebecca Monson, MD
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Confidential - For Quality Improvement Purposes Only
Orthopaedic and Hospitalist Co-Management Program

**Project Aim Statement**

Hospitalist Co-Management Team was initiated as a Hospitalists, Anesthesia, Orthopaedic Surgeons, and University Healthcare Consortium (UHC) data co-management team Orthopaedic Nurse Practitioners and referred to the co-management of pre-existing medical conditions Co-Management team following for medical co-morbidities, and elective Orthopaedic fracture, and Foot/Ankle patients as measured by UHC data from 2006 Quarter 4 to improve health outcomes timely Medical management of patients with evaluation, preparation, and risk assessment Improve consistency and result of interdisciplinary discussion quality decision making

**Analysis**

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- The Co-Management Team was effective in reducing mortality and improving patient outcomes
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- Elective patients were processed by the Orthopaedic Nurse Practitioners and referred to the co-management team

**Data**

- **Inpatient Hospital Costs**
  - **Actual Cost**
  - **Mean** = 5.5
  - **UCL** = 10.1
  - **LCL** = 0.9
- **30 Day Readmissions**
  - **Mean** = 6.9
  - **UCL** = 11.0
  - **LCL** = 2.8
- **Inpatient Hospital Mortality**
  - **Mean** = 0.5
  - **UCL** = 1.0
  - **LCL** = 0.0

**Excerpt from Table**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Count of Patients</th>
<th>Inpatient Hospital Mortality</th>
<th>Inpatient Hospital Costs</th>
<th>30 Day Readmissions</th>
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<tr>
<td>2004 Q4</td>
<td>(n=236)</td>
<td>0.5</td>
<td>6.9</td>
<td>5.5</td>
</tr>
<tr>
<td>2005 Q1</td>
<td>(n=233)</td>
<td>0.5</td>
<td>5.5</td>
<td>6.9</td>
</tr>
<tr>
<td>2005 Q2</td>
<td>(n=261)</td>
<td>0.5</td>
<td>5.5</td>
<td>6.9</td>
</tr>
<tr>
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<td>(n=239)</td>
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<td>5.5</td>
<td>6.9</td>
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<tr>
<td>2005 Q4</td>
<td>(n=225)</td>
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<td>5.5</td>
<td>6.9</td>
</tr>
<tr>
<td>2006 Q1</td>
<td>(n=208)</td>
<td>0.5</td>
<td>5.5</td>
<td>6.9</td>
</tr>
<tr>
<td>2006 Q2</td>
<td>(n=260)</td>
<td>0.5</td>
<td>5.5</td>
<td>6.9</td>
</tr>
<tr>
<td>2006 Q3</td>
<td>(n=238)</td>
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<td>5.5</td>
<td>6.9</td>
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<tr>
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<td>6.9</td>
</tr>
<tr>
<td>2007 Q2</td>
<td>(n=208)</td>
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<td>5.5</td>
<td>6.9</td>
</tr>
<tr>
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<td>6.9</td>
</tr>
<tr>
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<td>5.5</td>
<td>6.9</td>
</tr>
<tr>
<td>2008 Q1</td>
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<td>6.9</td>
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<td>2008 Q3</td>
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<td>0.5</td>
<td>5.5</td>
<td>6.9</td>
</tr>
<tr>
<td>2008 Q4</td>
<td>(n=230)</td>
<td>0.5</td>
<td>5.5</td>
<td>6.9</td>
</tr>
</tbody>
</table>

**Chart Title**

- Hospitalist Co-Management Program Implemented
- Percent of Inpatients Non-Traumatic Orthopaedic Surgical Discharges
- Percent of Inpatients Related Readmission
- Data Source: Loyola University Medical Center inpatients with a hospital bill (UB-04) containing a principal procedure performed by Dr Pinzur, Hopkinson, Harrington, Stover, Rinella, Rapp, Summers, or Wu. Cases with a DRG/MSDRG indicating Trauma admission were excluded. Patients under 18 years at admission are excluded.

**Footnotes**

- Related Readmission: Data Source: Loyola University Medical Center inpatients with a hospital bill (UB-04) containing a principal procedure performed by Dr Pinzur, Hopkinson, Harrington, Stover, Rinella, Rapp, Summers, or Wu. Cases with a DRG/MSDRG indicating Trauma admission were excluded. Patients under 18 years at admission are excluded.

**Confidential - For Quality Improvement Purposes Only**
Orthopaedic and Hospitalist Co-Management Program

Loyola University Chicago Stritch School of Medicine
Terry Light, MD, Timothy Bapp, MD, Hobie Summers, MD, Paul Goenski, MD, Vicky Davidson-Bell, RN, Edward Garza, MD, Theresa Krisiopaitis, MD, Rebecca Monsen, MD

Problem Statement
Orthopaedic product line mortality exceeded the University Healthcare Consortium (UHC) data findings.

Intervention
- Interdisciplinary group met to discuss mortality and morbidity issues in the Orthopaedic population
- Hospitalists, Anesthesiologists, Orthopaedic Surgeons, and nursing contributed
- Hospitalist Co-Management Team was initiated as a result of interdisciplinary discussion

Project Aim Statement
- Improve consistency and quality of preoperative evaluation, preparation, and risk assessment
- Consistent medical management of patients with co-morbidities
- Timely decision making
- Improve health outcomes (mortality and morbidity) as measured by UHC data from 2006 Quarter 4 to 2008 Quarter 4

Action
- Orthopaedic/Hospitalist Co-Management team was initiated, covering Joint replacement, Hip fracture, and Foot/Ankle patients
- Patients with isolated orthopaedic trauma and stable medical co-morbidities, and elective Orthopaedic patients with multiple co-morbidities were admitted to the Orthopaedic service with the Co-Management team following co-management of pre-existing medical conditions
- Elective patients were pre-screened by the Orthopaedic Nurse Practitioners and referred to the co-management team

Analysis
- Following implementation of the Co-Management team, product line mortality dropped significantly from 1.0% to 0.33%
- The Co-Management Team was effective in reducing mortality and improving patient outcomes
- Loyola is now rated in the top 10 UHC hospitals for orthopaedic mortality

Additional Benefits
- The percentage of Orthopaedic patients receiving ICU care decreased
- Inpatient hospital actual costs were significantly and consistently below expected costs, the program did not lead to increased hospital cost

Next Steps
- Continue monitoring outcome
- Separate data based on subspecialty
- Expand program to all Orthopaedic patients with complex medical needs that are admitted to the hospital, on the Orthopaedic service

Confidential - For Quality Improvement Purposes Only
Orthopaedic and Hospitalist Co-Management Program

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Orthopaedic product line mortality exceeded the University HealthSystem Consortium (UHC) data findings.

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- Interdisciplinary group met to discuss mortality and morbidity issues in the Orthopaedic population
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- Improve consistency and quality of preoperative evaluation, preparation, and risk assessment
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- Orthopaedic-Hospitalist Co-Management team was initiated, covering Joint replacement, Hip fracture, and Foot/Ankle patients
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Additional Benefits
- The percentage of Orthopaedic patients receiving ICU care decreased
- Readmission rate improved
- Inpatient hospital actual costs were significantly and consistently below expected costs, the program did not lead to increased hospital cost

Next Steps
- Continue monitoring outcome
- Separate data based on subspecialty
- Expand program to all Orthopaedic patients with complex medical needs that are admitted to the hospital, on the Orthopaedic service
Project Aim Statement
Hospitalist Co-Management Team was initiated as an interdisciplinary group to discuss mortality and intervention findings.

Problem Statement
Confidential - For Quality Improvement Purposes Only
Fracture, and Foot/Ankle patients were excluded. Patients under 18 years at admission are excluded.

Improve health outcomes (mortality and morbidity) as measured by UHC data from 2006 Quarter 4 to 2008 Quarter 4.

Analysis
Confidential - For Quality Improvement Purposes Only
Mortality Rate = 0.33%

Additional Benefits
The percentage of Orthopaedic patients receiving ICU care decreased.

Next Steps
Continued monitoring outcome.
Separate data based on subspecialty.
Expand program to all Orthopaedic patients with complex medical needs that are admitted to the hospital, on the Orthopaedic service.
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Intervention
- Interdisciplinary group met to discuss mortality and morbidity issues in the Orthopaedic population
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Project Aim Statement
- Improve consistency and quality of preoperative evaluation, preparation, and risk assessment
- Consistent medical management of patients with comorbidities
- Timely decision making
- Improve health outcomes (mortality and morbidity) as measured by UHC data from 2006 Quarter 4 to 2008 Quarter 4

Action
- Orthopaedic-Hospitalist Co-Management team was initiated, covering joint replacement, hip fracture, and foot/ankle patients
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- Elective patients were pre-screened by the Orthopaedic Nurse Practitioners and referred to the co-management team

Analysis
- Following implementation of the Co-Management team, product line mortality dropped significantly from 1.0% to 0.33%
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Additional Benefits
- The percentage of Orthopaedic patients receiving ICU care decreased
- Inpatient hospital actual costs were significantly and consistently below expected costs, the program did not lead to increased hospital cost

Next Steps
- Continue monitoring outcome
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**Expected Cost**
- Actual Orthopaedic costs were significantly below expected costs, the program did not lead to increased hospital cost

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Analysis:
- The observed percent of patients receiving ICU care significantly decreased since 2004 Q4, appearing to stabilize at current levels in 2006.
- University HealthSystem Consortium (UHC) Clinical Database (CDB) using MSDRG risk-adjustment methodology. ICU information is determined based on the hospital bill (UB-04).

Additional Benefits
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