Trends in Palliative Care Pharmacist Interventions and Outcomes

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Special Thanks to Dr. Kyle Edmonds
Objectives

• Background/training
• Provide a background of our palliative care team with PCQN data
• Describe my role as an inpatient palliative care pharmacist
  – Discuss outcomes data
Background

• Graduated UCSF School of Pharmacy in 2003
• Completed an acute care residency with focus in critical care
• Inpatient ICU pharmacist for 2 years at UC San Diego
• Joined palliative care team UC San Diego in 2006
  – Ambulatory care
  – Collaborative practice protocol
  – DEA license/NPI number
• 2014 transitioned from ambulatory care to inpatient
Background

• Training in palliative
  – Fellowship training through San Diego Hospice and Institute for Palliative Medicine
  – American Society of Health-System Pharmacists (ASHP): Pain Management and Palliative Care Traineeship
    • University of Maryland, Baltimore
  – Residency training in palliative care?
    • Now 11 accredited palliative care pharmacy residency programs
OUR PALLIATIVE CARE TEAM
Doris A Howell Service

- Consult Palliative Care Service at UC San Diego Health started in 2005

<table>
<thead>
<tr>
<th>Team</th>
<th>Location</th>
<th>Population</th>
<th># of new patients 2015</th>
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</thead>
<tbody>
<tr>
<td>Thornton Hospital (Inpatient)*</td>
<td></td>
<td>Oncology, hematology</td>
<td>794</td>
</tr>
<tr>
<td>Sulpizio Cardiovascular Center (Inpatient)</td>
<td></td>
<td>Cardiovascular, pulmonary</td>
<td>Data not available yet</td>
</tr>
<tr>
<td>Hillcrest (Inpatient)</td>
<td></td>
<td>Trauma, liver transplants, kidney transplants</td>
<td>676</td>
</tr>
<tr>
<td>Moores Cancer Center (Outpatient)*</td>
<td></td>
<td>Oncology/Hematology</td>
<td>230</td>
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</table>
# Palliative Care Team: Growth

<table>
<thead>
<tr>
<th>Team members</th>
<th>2006</th>
<th>2015</th>
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<tbody>
<tr>
<td>Director</td>
<td>Charles Von Gunten, MD</td>
<td>William Mitchell, MD</td>
</tr>
<tr>
<td>MD</td>
<td>1 (0.2FTE)</td>
<td>6 (5 FTE)</td>
</tr>
<tr>
<td>NP</td>
<td>1 (1 FTE)</td>
<td>4 (3.4 FTE)</td>
</tr>
<tr>
<td>LCSW</td>
<td>1 (1 FTE)</td>
<td>2 (1.8 FTE)</td>
</tr>
<tr>
<td>PharmD</td>
<td>1 (0.20 FTE)</td>
<td>2 (0.5 FTE)</td>
</tr>
</tbody>
</table>
Preliminary PCQN Data

- Incomplete preliminary data
- 393 patient data has been entered

<table>
<thead>
<tr>
<th></th>
<th>Patient Days</th>
<th>LOS Mean</th>
<th>LOS Median</th>
<th>LOS Range</th>
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<tr>
<td>LOS (Days) Prior to Consult</td>
<td>3,036</td>
<td>7.8</td>
<td>4.0</td>
<td>1 - 90</td>
</tr>
<tr>
<td>LOS (Days) During Consult</td>
<td>3,347</td>
<td>8.5</td>
<td>5.0</td>
<td>1 - 102</td>
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<tr>
<td>Number of Contacts</td>
<td>1,060</td>
<td><strong>2.7</strong></td>
<td>2.0</td>
<td>1 - 16</td>
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</tbody>
</table>
PCQN Member Comparison Report

Earliest discharge date for University of CA, San Diego: 01/03/2015. Latest discharge date for University of CA, San Diego: 02/02/2016.

Mean Patient Age
01/01/2013 - 03/22/2016

The thin lines overlapping the bars represent the 95% confidence limits.
PCQN Member Comparison Report

Earliest discharge date for University of CA, San Diego: 01/03/2015; Latest discharge date for University of CA, San Diego: 02/02/2016

Referral Reason - Goals of Care/Advance Planning
01/01/2013 - 03/22/2016

The thin lines overlapping the bars represent the 95% confidence limits.
PCQN Member Comparison Report

Earliest discharge date for University of CA, San Diego: 01/03/2015; Latest discharge date for University of CA, San Diego: 02/02/2016

Referral Reason - Pain Management
01/01/2013 - 03/22/2015

The thin lines overlapping the bars represent the 95% confidence limits
PCQN Member Comparison Report

Earliest discharge date for University of CA, San Diego: 01/03/2015; Latest discharge date for University of CA, San Diego: 02/02/2016

Referral Reason - Other Symptom Management
01/01/2013 - 03/22/2016

The thin lines overlapping the bars represent the 95% confidence limits.
PHARMDS ON THE TEAM
1 PharmD: 0.4 FTE inpatient
1 PharmD: 0.1 FTE outpatient
<table>
<thead>
<tr>
<th>New Pts</th>
<th>Follow-up Encounters</th>
<th>Total Annual Encounters</th>
<th>Avg Daily Encounters (wk dys only)</th>
<th>MDs</th>
<th>NPs</th>
<th>Social Workers</th>
<th>Pharmacist</th>
<th>Chaplain</th>
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<tbody>
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<td>640</td>
<td>840</td>
<td>3</td>
<td>0.5</td>
<td>0.0</td>
<td>0.4</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>300</td>
<td>960</td>
<td>1260</td>
<td>5</td>
<td>1.0</td>
<td>0.5</td>
<td>0.6</td>
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<td>0.3</td>
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<td>400</td>
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<td>1680</td>
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<td>1.0</td>
<td>0.8</td>
<td>0.5</td>
<td>0.3</td>
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<td>500</td>
<td>1600</td>
<td>2100</td>
<td>8</td>
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<td>1.0</td>
<td>1.0</td>
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<td>0.4</td>
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<td>2520</td>
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<td>700</td>
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<tr>
<td>800</td>
<td>2560</td>
<td>3360</td>
<td>13</td>
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<td>1.5</td>
<td>1.6</td>
<td>1.0</td>
<td>0.7</td>
</tr>
<tr>
<td>1000</td>
<td>3200</td>
<td>4200</td>
<td>17</td>
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<td>2.0</td>
<td>2.0</td>
<td>1.3</td>
<td>0.8</td>
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<tr>
<td>1200</td>
<td>3840</td>
<td>5040</td>
<td>20</td>
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<td>2.0</td>
<td>2.4</td>
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<td>1.0</td>
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<tr>
<td>1400</td>
<td>4480</td>
<td>5880</td>
<td>23</td>
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<td>1800</td>
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<td>7560</td>
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<td>3.6</td>
<td>2.3</td>
<td>1.5</td>
</tr>
<tr>
<td>2000</td>
<td>6400</td>
<td>8400</td>
<td>33</td>
<td>4.5</td>
<td>3.0</td>
<td>4.0</td>
<td>2.5</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Banner Health
Palliative Care Pharmacists

• Pharmacists’ role in palliative care and end of life care have been established [1-3]

• PharmD interventions have resulted in positive patient outcomes [4-5]

• Goal of this presentation is to increase awareness of the role of a palliative care pharmacist

EPIC Flowsheet: PCQN Data Collection
Pharmacist Symptom Management

Intervention/Outcomes:  *Proposed*

• Intervention: Change in medication
  – Add a new medication
  – Stop a medication
  – Increase a medication dose
  – Decrease a medication dose
  – Recommended a change in bowel regimen
  – Recommended a change in nausea regimen
  – Recommended a change in pain regimen

• Outcomes: Symptom improvement
  – No improvement
  – At least 1 symptom
  – At least 2 symptoms
  – > 3 symptoms
  – Sustaining symptom improvement
EPIC Flowsheet: Pharmacist Interventions

- Optimized symptom drug regimen
- Addressed inpatient nonadherence
- Coordinated medication insurance issues
- Decreased polypharmacy
- Reviewed CUREs report
- Identified drug interactions
- Make drug or dose adjustment to organ dysfunction
- Educated patient and/or providers
EPIC Flowsheet: Pharmacist Outcomes

Outcomes

• Change in medication therapy implemented
• Adherence to medication regimen improved
• Prior authorization approved
• Prior authorization denied/alternative medication selected
• Medication regimen consolidated
• Medication history and response to drug clarified
• Aberrant drug seeking behavior identified
• Plan for safe prescribing developed
EPIC Flowsheet: Pharmacist Outcomes

Outcomes continued
- Patient harm from drug interaction identified/corrected
- Potential harm from drug interaction identified/avoided
- Harmful drug dose avoided or corrected
- Patient and/or family educated
- Healthcare professional educated
- Discharge prescription coordinated
Results: PharmD

• Time frame: September 1, 2015 thru February 29, 2016 (6 months)
• 0.40 FTE pharmacist (2 days)
• n= 114 patients (35% of patients seen by Thornton team)
• n= 312 patient encounters
  – 13 pts/week
  – 6.5 pts/day
• Number of interventions total = 320
• Number of outcomes total= 391
Optimized symptom drug regimen (31.6%)

Educated patient/providers (27.5%)

Addressed inpatient nonadherence (12.5%)
Change in med therapy implemented (24.8%)

Healthcare professional educated (20.5%)

Patient and family educated (13%)
<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Thornton Team</td>
<td>184 (56%)</td>
<td>144 (44%)</td>
</tr>
<tr>
<td>0.40 FTE PharmD</td>
<td>97 (85%)</td>
<td>17 (15%)</td>
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## LOS

<table>
<thead>
<tr>
<th></th>
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<th>PharmD</th>
<th>Delta</th>
<th>p=0.77 (Pearson correlation)</th>
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<tbody>
<tr>
<td>Mean</td>
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<tr>
<td>StDev</td>
<td>12.3</td>
<td>18</td>
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<tr>
<td>Median</td>
<td>7.9</td>
<td>9.9</td>
<td>1.9</td>
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LTC

<table>
<thead>
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<th>PharmD</th>
<th>Delta</th>
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<tbody>
<tr>
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<td>5.7</td>
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<tr>
<td>StDev</td>
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<td>11.6</td>
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<tr>
<td>Median</td>
<td>3.1</td>
<td>2</td>
<td>-1.2</td>
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</tbody>
</table>

- Trend in pharmacist seeing patients earlier and good response time
- We are probably getting consulted earlier for symptom management cases vs. advanced care planning

LTC=Length of time to consult
Society of Palliative Care Pharmacists (SPCP)

• Mission: “SPCP promotes exceptional patient care by advancing palliative pharmacists through education, advocacy, and research in collaboration with the transdisciplinary team.”

• www.palliativepharmacist.org

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