Delivering exceptional patient care
National Integrated Palliative Program

Using Electronic Clinical Management Systems to Drive Best Practices in Palliative Care

CHCA Summit, Vancouver, Oct 22-23, 2018

Mital Patel, R Pharm.
Leslie Marvell, RN, BScN, CONC(C), CHPCN(C)
Challenges Facing Community Palliative Care

• **Situation** = A 54 year old female is suddenly needing to be prescribed morphine as Tylenol #3 oral pain medication not addressing symptoms. Family is with the patient at home but has not been told that patient is palliative. Physician order indicates drug but missing duration and formulation. Health authority wants it delivered within 3 hours as a rush request with 2 hours drive time and sends incorrect supplies order to align with physician order. Nursing visit scheduled for 4 hours from order being sent.

• **Problem Statement** = medical order needs verifying with review between pharmacist and physician, supplies order needs correcting to align with medical order, need to communicate changes regarding delivery expected timing to care team, and communication must be sensitive to family situation and patient choices.
How We Resolve the Situation

Our approach to support clinicians:

- Electronic clinical management system to support nurses to follow collaborative care plans, track PPS scores, building in advance planning directives early in journey following the “Speak Up” campaign, set goals of care, and triggering need for family conversations, medication reviews and ordering SRK proactively.

- BPGs and decision supports built into eCMS to guide practice supporting palliative journeys more proactively so patient and family are prepared for making decisions and feel supported through journey.
How We Resolve the Situation

Our approach to support physicians and pharmacists:

• Electronic order sets that guides correct formulation and dispensing guidelines and supports physicians with decision making when transitioning from oral to infusion based medications

• Established medical order templates to support physicians on prescribing infusion based medications, particularly when not familiar with complexity of order requirements
How We Resolve the Situation

Our approach to support case managers:

• Online, app-based decision support tool allows health authority to select best selection of supplies that match the specific physician order that accommodates, type of medication, route, duration, and local infusion guidelines

• Electronic formulary catalogue that supports Case Managers to view different supply options, understand equivalencies, and kit contents

• For some programs, we are able to allow case managers to order directly from online catalogue
How We Resolve the Situation

Our approach to support care team:

• Online order tracking system that allows home care nurses to log in and see ETA for medication and supplies

• For some programs, we are able to update a care team portal allowing view of lab results, physician orders, pre and post infusion results, and changes in status
Palliative Integrated Teams

• Bayshore HealthCare is a Canadian-owned provider of home and community health care services
• Integrating nursing and pharmacy services supporting palliative care
• Includes Bayshore Home Care Solutions and Bayshore Specialty Rx
Integrated Care Teams

• Teams can include nursing, PSW, therapies, pharmacy, medical equipment and supplies, case management

• May include virtual care delivery model for transfer of authority or clinical consultation

• Able to interface data across systems for stakeholder communication and reporting
• Epsilon™ is a comprehensive platform which includes
  – integrated office and field applications,
  – leading-edge mobile documentation and decision support systems,
  – proprietary processes that integrate all elements of safe, efficient and effective care delivery

• The platform is designed to meet present and emerging home care market needs in the areas of community and facility cluster care, quality indicator reporting requirements and outcome based care models
Clinical Order Sets

- The Clinical and care pathways, electronic Medication Administration Records and advanced electronic forms and flow sheets allow for real-time data interchange and decision support at the client location, at the time of care.
Clinical Order Sets

• Together, this makes the clinical documentation more timely and accurate

• Clinical documentation forms the basis of a longitudinal client Electronic Medical Record
Clinical Order Sets

- Epsilon™ has been implemented across various programs since 2013 and is accompanied by extensive staff education and support.
We follow the principles of a palliative approach to care ensuring we are meeting client “goals of care” and often reinforce the CHPCA “Speak UP” campaign.
Specialty Pharmacy Network

- Pain management and palliative care programs
- Ambulatory pumps programming and maintenance expertise
- IV administration expert consultants
- Cold chain distribution
- Warehouse
- Logistics services
Specialty Pharmacy Network

• 13 specialty infusion pharmacies across the country

• ISO-5 Clean room in compliance with USP<797> and NAPRA standards

• Dedicated Hazardous compounding room in compliance with USP<800>

• High Tech fully automated TPN compounding
Pharmacy System – Kroll™

• Kroll™ is the pharmacy software which helps pharmacist optimize operations and enhance customer experience.

• It has features like:
  – Prescription filling
  – Online adjudication
  – Alerts to help pharmacist minimize:
    • Duplication of therapy
    • Drug – Drug Interaction
    • Drug – Allergy Interaction
  – Extensive reporting
Pharmacy Order Sets

• Order sets are Bayshore designed pdf documents that assist:
  – Doctor:
    • In complex calculations when changing oral/topical pain medication to Subcutaneous pain pump order. Order sets were developed to include automation for formula calculations
  – Bayshore Pharmacist and Pharmacy Assistants:
    • In making sure compound sheet are created correctly with accurate calculation, automatic selection of proper container and detailed information about drug being compounded

• Order sets are tested thoroughly by a team of clinicians, pharmacists and IT experts to make sure they deliver what they are designed for expected results
# Opioid Conversion Guide

<table>
<thead>
<tr>
<th>Patient’s current medication</th>
<th>Total dose in last 24 hours</th>
<th>Conversion factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphine oral</td>
<td>20 mg</td>
<td>10 : 1</td>
</tr>
<tr>
<td>Hydromorphone SC</td>
<td>5 mg</td>
<td>1 : 1</td>
</tr>
<tr>
<td>Hydromorphone oral</td>
<td>10 mg</td>
<td>2 : 1</td>
</tr>
<tr>
<td>Morphine oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morphine SC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydromorphone oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hydromorphone SC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxycodone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fentanyl Patch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fentanyl SC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Desired medication for parenteral pain pump order

- Hydromorphone SC

Route of administration

- SC

Recommended rate of administration

- 0.5 mg/hr

Enter the frequency (minutes) you want patient to get a bolus dose

- 20 minutes

Recommended PCA bolus dose

- 0.4 mg

Preferred concentration

- 2 mg/mL

Preferred reservoir size

- 100 mL
**Compounding Order I**

**Compounding Sheet**

**HYDROMorphone PCA (CADD Solis)**

**Prepared By:**

**Checked By:**

**Name:** Patient Name  
**Date:** 5-Oct-2018

**Order:** HYDROMorphone 7 mg/hr (max 7 mg/hr); S-Bolus 10 mg (max 10 mg); q 30 min PRN

**Final Product:** HYDROMorphone 20 mg/mL = 2000 mg in 100 mL

**Stability:** 30 Days  
**Storage:** Refrigerate  
**Bag Size:** 100 mL  
**Remove Air:** YES

**Comment/Special Instructions:**

- ***Sterile Empty Bag***

<table>
<thead>
<tr>
<th>Medication</th>
<th>Final Conc.</th>
<th>Total Amount to withdraw</th>
<th>Quantity</th>
<th>Due Date</th>
<th>Comp Date</th>
<th>Prep room Initials</th>
<th>Clean Room Initials</th>
<th>Prep Room Initials</th>
<th>R. Ph. Or R. Ph. T Initials</th>
<th>Cassette /Bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additive 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYDROMorphone</td>
<td>100 mg/mL</td>
<td>20 mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additive 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal Saline</td>
<td>80 mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**REFILLS**
**Compounding Order II**

**Bayshore Specialty Rx**

**MH Compounding Sheet**

**HYDROMorphone PCA (CADD Solls)**

<table>
<thead>
<tr>
<th>Name: Patient Name</th>
<th>Date: 5-Oct-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order: HYDROMorphone</td>
<td>7 mg/hr; (max 7 mg/hr) S Bolus 10 mg; (max 10 mg) q 30 min PRN</td>
</tr>
<tr>
<td>Final Product: HYDROMorphone</td>
<td>20 mg/mL = 2000 mg in 100 mL</td>
</tr>
<tr>
<td>Stability: 30 Days</td>
<td>Storage: Refrigerate</td>
</tr>
<tr>
<td>Bag Size: 100 mL</td>
<td>CADD Cassette</td>
</tr>
<tr>
<td>Comment/Special Instructions</td>
<td>Remove Air: YES</td>
</tr>
</tbody>
</table>

***CADD Cassette***

**Medication**

<table>
<thead>
<tr>
<th>Medication</th>
<th>Final Conc.</th>
<th>Total Amount to withdraw</th>
<th>Quantity</th>
<th>Due Date</th>
<th>Comp Date</th>
<th>Prep Room Initials</th>
<th>Clean Room Initials</th>
<th>Prep Room Initials</th>
<th>R. Ph. Or R. Ph. T Initials</th>
<th>Cassette /Bag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additive 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYDROMorphone</td>
<td>100 mg/mL</td>
<td>20 mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additive 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal Saline</td>
<td></td>
<td>80 mL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Refills**

**Baysnmore Pharmacy**
Benefits to Electronic Order Sets

• Clarification of orders process has:
  – Reduced the number of physician errors
  – Improved time expected to process orders
  – Increased standardization of complex medication dispensing orders
  – Reduced duplication and number of errors in supply orders
Symptom Relief Kits

Benefits:
- Readiness for family
- Support for patient
- Part of advanced care planning
Evaluation of Programs

Metrics to Evaluate Pharmacy Programs:

• # Physician errors / total orders
  – Triggers need for additional support for physicians by region

• # order errors for supplies / total supply orders
  – Need for support for additional training for case managers by region

• # patients with SRKs / # palliative program patients in a year
  – Need for support for additional ACP training

• # Deliveries on time / total orders
  – Timely access to pain and symptom relief
Metrics to Evaluate Clinical Programs:

• Length of Stay by Palliative Performance Scale stage compared across programs
  – Better outcomes achieved with early referrals

• Satisfaction surveys
  – Family experience helps to understand risk of burn out and need for bereavement support

• Preferred place of death
  – Patient satisfaction and managing change through palliative journey
Dear Pharmacists,

I would like to send a quick word of thank you. Our team at Lakeridge Health Oshawa try to provide the best in home palliative care for our patients. Their conditions change so quickly and we try to be prepared but often we are in need of urgent medications.

Your team is always so accommodating...and kind about our urgent requests! The patients thank us often and never see you or the work you do to thank you directly. So I want to thank you.

You have chosen a hard job as a pharmacist, there are many other easier options. I guess the same could be said for the physicians on our team too...but as I said we see the patients, we hear their thank you, we see the relief of the medicines you provide.

Thank you for all you do and your commitment to a challenging time sensitive profession.

Sincerely, Dr. Caroline McAllister
Our Presence Across Canada

Bayshore HealthCare is a family of more than 13,000 staff members.

Over 100 Locations
65 Home Care Offices
13 Pharmacies
75+ Community Care Clinics

Bayshore caregivers provide over 11,000,000 hours of care per year.

Every year we take care of more than 375,000 Canadians.
Over 50 Years of Health Care in Canada
Passionate, Caring

Imagine being the difference.
Thank you

from the Bayshore Family

We look forward to working with you and supporting your health, your way, in your community.