

Delivering exceptional patient care



Bayshore[®]
HealthCare

National Integrated Palliative Program

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

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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

Cancer Care Ontario
Action Cancer Ontario



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

Bayshore[®]
Pharmacy

Bayshore[®]
Home Care Solutions

Bayshore
HealthCare

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

Bunny, Lola Status: Incomplete
Step: Visiting Nursing Entry Care: • eMAR
Elements: • General Care and Risk Hazard
• Hospice Palliative

Date: 10/15/2018 12:00 AM 12:00 AM Order: Visit: Reason:

Care plan: Hospice Palliative Pain Vitals eMAR General Care/Risk

EMAR TAB
DISCIPLINE: All CARE PATHWAY: All MET/DONE: All

☐ Yes ☐ No

To toggle between the ability to view profile and view admin records, use the side tabs below.

Medications/Drugs (Current)										
Code	Description	Prescribed Date	Expiration Date	Brand Name	Status	Strength	Units	Quantity	Frequency	Route
2224704	LASIX	5/9/2013		LASIX	New	20	mg		o.d.	PO
2041456	ATIVAN	5/9/2013		ATIVAN	New	2	mg		p.r.n.	SL
626112	B-12 1000 INJ 1000MCG/ML	5/9/2013		B-12 1000...	New	1	ml		monthly	IM
24694	ATARAX SYRUP 2MG/ML	5/9/2013		ATARAX S...	New	6	ml		o.d.	PO
>	HYDROMORPH HYDROMORPHONE HCL	10/15/2018		HYDROM...	New	2	mg		q6h	PO

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

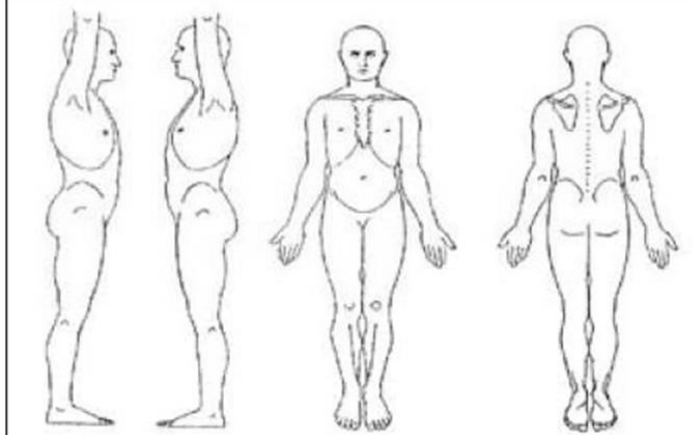
Date: 10/15/2018 12:00 AM 12:00 AM Order: Visit:

Care plan Hospice Palliative Pain Vitals eMAR General Care/Risk

PAIN TAB

DISCIPLINE: All CARE PATHWAY: All

On the diagram, shade in the areas where the client feels pain. Put an X on the area that hurts the most.



Follow-ups/Notes Validation

Clinical Order Sets

- Epsilon™ has been implemented across various programs since 2013 and is accompanied by extensive staff education and support.

The screenshot shows the Epsilon clinical order set interface. At the top, there is a 'Home' tab and a toolbar with icons for 'Save and Close', 'Cancel', 'Print', 'Complete', 'Validate', 'Add Entry', 'Customize Care Pathway', 'Care Elements', 'Dashboard', and 'Notes'. Below the toolbar, the patient's name 'Bunny, Lola' is displayed, along with 'Step: Visiting Nursing Entry'. To the right, the status is 'Incomplete', and the care elements are 'eMAR', 'General Care and Risk Hazard', and 'Hospice Palliative'. Below this, there are dropdown menus for 'Date' (10/15/2018), 'Time' (12:00 AM), 'Order' (12:00 AM), 'Visit', and 'Reason'. A row of buttons includes 'Care plan', 'Hospice Palliative', 'Pain', 'Vitals', 'eMAR', and 'General Care/Risk'. The main section is titled 'HOSPICE PALLIATIVE TAB' and contains a table with 'QUESTIONS' and 'N/A' columns. The questions listed are: Client Instructions, Pain Score, Tiredness Score, Nausea Score, Depression Score, Anxiety Score, Drowsiness Score, Appetite Score, Well-being Score, Shortness of Breath Score, and Other. At the bottom, there are tabs for 'Follow-ups/Notes' and 'Validation'.

QUESTIONS	N/A
Client Instructions	
Pain Score	
Tiredness Score	
Nausea Score	
Depression Score	
Anxiety Score	
Drowsiness Score	
Appetite Score	
Well-being Score	
Shortness of Breath Score	
Other	

Clinical Order Sets

- 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

Bunny, Lola
Step: Visiting Nursing Entry

Status: Incomplete
Care: • eMAR
Elements: • General Care and Risk Hazard
• Hospice Palliative

Date: 10/15/2018 12:00 AM 12:00 AM Order: Visit: Reason:

Care plan Hospice Palliative Pain Vitals eMAR General Care/Risk

CARE PLAN TAB			
Actual/Potential risk related to impaired health status	⚡	All risks will be identified and managed	⚡ Clinician will assess, identify and support client/caregiver with effective management of all actual or potential risks
Actual/Potential medication mismanagement	⚡	Client's medication administration will be effectively managed	⚡ Clinician will assess and support client/caregiver with effective medication management
Phase 1: Stable (PPS 100%-70%) Knowledge deficit r/t Hospice Palliative diagnosis, prognosis, and or disease process	⚡	Client/caregiver identifies most responsible physician identified	⚡ Nurse, in collaboration with client/family will determine most responsible physician
		Client verbalizes understanding of disease progression and treatment plan	⚡ Nurse will provide teaching to client/family re: disease progression and treatment plan
Phase 1: Stable (PPS 100%-70%) Knowledge deficit r/t HPC advanced care planning	⚡	Client/caregiver identifies POA-PC or substitute decision maker	⚡ Nurse provides teaching to client/caregiver on the importance of identifying a POA for personal care or substitute decision maker
		Client/caregiver verbalizes resuscitation status	⚡ Nurse explains and teaches client/caregiver about resuscitation status
Phase 1: Stable (PPS 100%-70%) Comfort r/t pain	⚡	Client/caregiver maintains optimal pain control	⚡ Nurse teaches client/caregiver pain management strategies

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 compounder



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


The screenshot displays the Kroll pharmacy software interface for a new prescription entry. The window title is "Store 1 (LHIN) --1- New Rx for Patel, Mitalkumar". The menu bar includes File, Edit, Recent, Rx, View, Labels, Profile, Reports, Utilities, NH, Cards, Session, and Help. The version is 10.0. The interface is divided into several sections:

- Patient Search:** Name: Patel, Mitalkumar, Age: 29, Address: 70 Esna Park Drive, City: Markham, Phone: (647) 709-1413, Plan: ODB, Client ID: P8176094467.
- Drug Search:** Brand: Haloperidol Inj 5mg Sandoz, Generic: Haloperidol (Haldol), Pack: 1 Form ML, ODB BAP: \$4.83, On-Hand: 38.52, DIN: 00808652, Min Qty: 0.
- Prescription Details:** Rx Start Date: 17/10/2018, Latest Fill: 0, Qty: 1, Init: [Look Up] [Cancel].
- Delivery:** Dgc Search: Dr. Gupta, Asha, Address: 2200 Eglinton Avenue West, City: Mississauga, Phone: (905) 813-1100, Lic#: 80792, Alt. Lic#: 020025.
- Init:** MKP, MKP, Auth Qty: 2, 1, Days: 1, G.P. %: 49.84, Prod Sel: (NONE), Acq Cost: \$9.66, O/W: Faxed, Markup: \$0.77, Labels: 1, Fee: \$8.83, Total: \$19.26.
- Plans:** Rx Plans: 208, Plan Pays: Not Adj., Extra Info (F2 Edits): ESI41, Not Adj., Inter: DA, Cash: Not Adj., Deduct: \$0.00.
- Next Disp Qty:** 0, Min Interval Days: 0, Max Disp Qty: 0, Auto Refill: [X] [Rx Comments (1)].
- Alerts:** Not enough inventory for Rx, Auto Order is disabled for this drug, Delivery Label will be printed.
- Workflow:** View Workflow Detail.

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

	OPIOID CONVERSION GUIDE	Units 9-11, 70 Euna Park Drive, Markham, ON L3R 6E7 T: 1-888-313-6988 F: 1-888-287-8577
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Patient's current medication		Conversion factor	
Name of medication	Total dose in last 24 hours		
Morphine oral <input type="button" value="v"/>	20 mg	10 : 1	
Hydromorphone SC <input type="button" value="v"/>	5 mg	1 : 1	
Hydromorphone oral <input type="button" value="v"/>	10 mg	2 : 1	
Morphine oral <input type="button" value="u"/>			
Morphine SC <input type="button" value="u"/>			
Hydromorphone oral <input type="button" value="u"/>			
Hydromorphone SC <input type="button" value="u"/>			
Oxycodone <input type="button" value="u"/>			
Fentanyl Patch <input type="button" value="u"/>			
Fentanyl SC <input type="button" value="v"/>			
Desired medication for parenteral pain pump order		Hydromorphone SC <input type="button" value="v"/>	
Route of administration <i>If IV, basal rate vol. must be min. 0.5ml/hr</i>		SC <input type="button" value="v"/>	
Recommended rate of administration		0.5	mg/hr
Enter the frequency (minutes) you want patient to get a bolus dose eg: 60 minutes, 30 minutes Recommended: 30 minutes		20	minutes
Recommended PCA bolus dose		0.4	mg
Preferred concentration		2	mg/mL
Preferred reservoir size		100	mL


Compounding Order I

	CE <input type="text"/>	Compounding Sheet HYDROMorphone PCA (CADD Solis)	Units 9-11, 70 Esna Park Drive, Markham, ON L3R 6E7 T: 1-888-313-6988 F: 1-888-287-8577
	Prepared By: <input type="text"/>	Checked By: <input type="text"/>	

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 ***Sterile Empty Bag***	Remove Air: YES
Comment/Special Instructions <input type="checkbox"/> ***Sterile Empty Bag***			

[illegible]

Compounding Order II

	MH ▼ Compounding Sheet HYDROmorphine PCA (CADD Solis) Prepared By: 	Units 9-11, 70 Esna Park Drive, Markham, ON L3R 6E7 T: 1-888-313-6988 F: 1-888-287-8577
	Checked By: 	

Name: Patient Name	Date: 5-Oct-2018
Order: HYDROmorphine 7 mg/hr;(max 7 mg/hr); S ▼ Bolus 10 mg;(max 10 mg); q 30 min PRN	
Final Product: HYDROmorphine 20 mg/mL = 2000 mg in 100 mL	
Stability: 30 Days	Storage: Refrigerate
Bag Size: 100 mL ***CADD Cassette***	Remove Air: YES
Comment/Special Instructions <div style="display: flex; align-items: center; justify-content: center;"> <input type="checkbox"/> ***CADD Cassette*** </div>	

Medication	Final Conc.	Total Amount to withdraw	Quantity	Due Date	Comp Date	Prep room Initials	Clean Room Initials	Prep Room Initials	R. Ph. Or R. Ph. T Initials	Cassette /Bag
Additive 1										
HYDROmorphine <small>Lot # Expiry</small>	100 mg/mL	20 mL								
Additive 2										
Normal Saline		80 mL								
REFILLS										

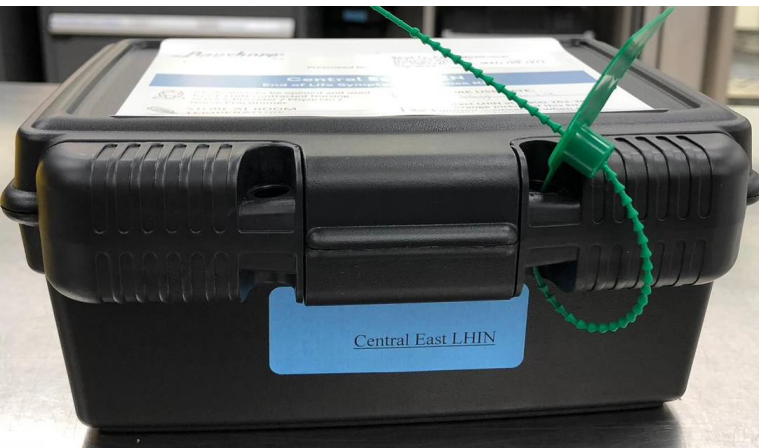
Benefits to Electronic Order Sets

- 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:

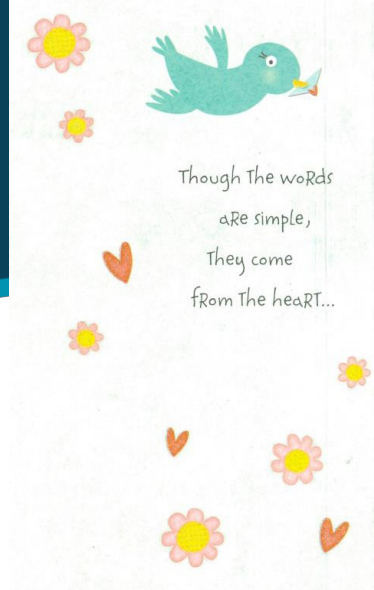
- # Physician errors / total orders
 - Triggers need for additional support for physicians by region
- # order errors for supplies / total supply orders
 - Need for support for additional training for case managers by region
- # patients with SRKs / # palliative program patients in a year
 - Need for support for additional ACP training
- # Deliveries on time / total orders
 - Timely access to pain and symptom relief

Evaluation of Programs

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

Thank You



Dear Pharmacists,
I wanted 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

Thank you.
we see the patients, we hear their thank you's, 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

Dear Pharmacists,

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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



Every year we take care
of more than **375,000**
Canadians



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

Over 50 Years of Health Care in Canada



RNAO
BEST PRACTICE
SPOTLIGHT
ORGANIZATION
CANADA

ORGANISME
VEDETTE EN PRATIQUES
EXEMPLAIRES



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.

