Calvary Centre for Palliative Care Research

Emergency Medication Kit in the Community Specialist Palliative Care Service: A Snapshot Audit

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Community Specialist Palliative Care Service

Interdisciplinary team

- PCMO, PCNP, RN's and allied health

1. Out Patient Clinic (OPC)
2. Home-based (HBPC) service
3. Consultancy teams
   - Acute and RACF's

Recognition of Need for Practice Change

- Shortcomings in current practice
- Desire to improve emergent symptom management for HBPC patients
- Provide sustainable change for positive patient outcomes
- Improve staff satisfaction with ability to reduce suffering

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EMERGENCY MEDICATION KIT (EMK) RESEARCH TRIAL 2013

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What is an EMK?

Individually labelled parenterals with standing orders

-Hydromorphone 2mg/1ml x 5 amps
-Metoclopramide 10mg/2ml x 5 amps
-Midazolam 5mg/1mg x 5 amps
-Haloperidol 5mg/1ml x 5 amps

Cost = approx. $16.00

Emergency Medication Kit

Clinically, what was the main objective ?

To reduced suffering through addressing emergency symptoms with appropriate, effective timely intervention for HBPC patients

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Timeline

- Ethics approval ✔
- Grant with thanks from RCNMP
- Trial commenced November 2012
- Completed at 31 weeks

Methodology

- Cohort of 99 successive, new admissions to HBPC
- Ineligible
  - Allergy or contraindication
  - History of drug misuse in home
  - No EPoA if patient unable to consent
  - Unwilling to participate
  - Proficiency in English language

Practice Change Post Trial

- EMK adopted into normal practice
- All eligible new admissions to HBPC are offered an EMK with standing orders based on opioid naive dosing
- Education re use and storage given

So, what do the HBPC RN's think?

- 100% satisfied with EMK use

- 100% surmised that EMK improved HBPC patient outcomes

Supporting Statements

- “Absolutely. I have worked in rural and remote areas- where there is nothing- EMK is fantastic"

- "Absolutely, otherwise each of those visits would have resulted in a long time in A&E- highly distressing for patients and families“

- "Given palliative care is about symptom management and QoL I think the EMK is essential"

Aim of Audit 2015

- To look at actual current practice
- Provide comparison to trial data
- Ensure goals are being met for best practice care

Audit Tool

- Questionnaire based on data collection tool used in original trial was developed
- Education given to HBPC RN's re tool and use was

Questionnaire to be used every time EMK is accessed for a new drug or new symptom during time period of 13weeks

Demographics

Trial 99 patients

- 84% (n: 86) malignant
- 57% (n: 57) males
- Average age 72yrs

Audit 39 patients

- 82% (n: 33) malignant
- 41% (n: 16) males
- Average age 73yrs

Patient Results

Trial

- 51 accessed EMK
- 48% (n: 24) accessed ≤ 7 days
- Median time to access 9 days

Audit

- 39 accessed EMK
- 30% (n:12) accessed ≤ 7 days
- Median time to access 57 days

Use of Each EMK Medication (≥1 times)

	Trial	Audit
Hydromorphone	40	39
Metoclopramide	18	12
Midazolam	15	23
Haloperidol	9	12

Unwanted Outcomes Averted with Use of EMK

	Trial	Audit
After Hours PCMO Review	94%	98%
Hospital Admission	92%	98%
Hospice Admission	94%	100%

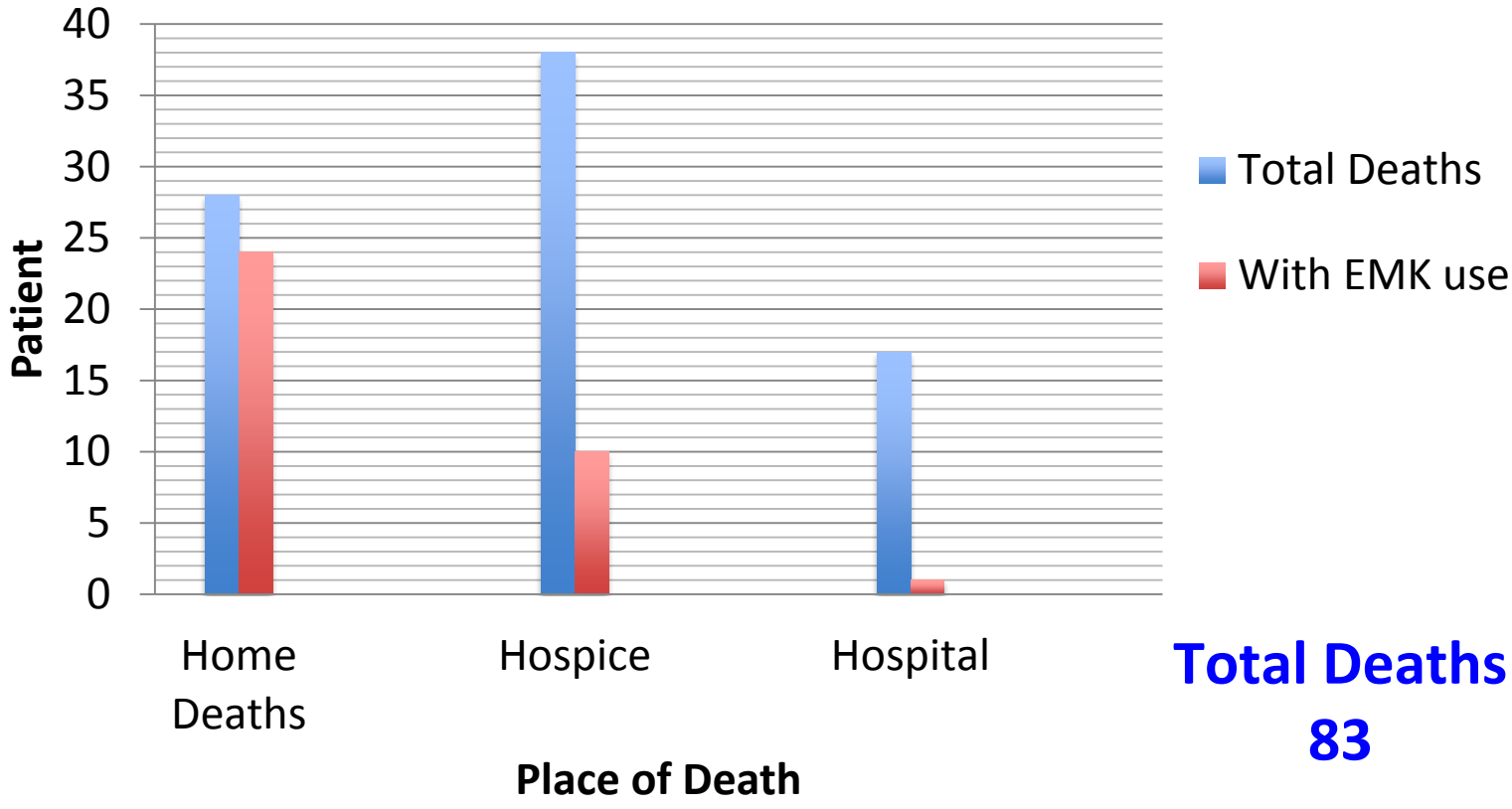
Summary of Audit Results

- 55 episodes of care for 39 patients
- 86 EMK medications given as BT or SC infusion for 78 different episodes (mostly pain)
- Syringe drivers set up in 16 cases at time of occasion of service
- No adverse outcomes
- Deemed as 100% effective by HBPC RNs

Comparison of Deaths

	Trial	Audit
Deaths at Conclusion	77	35
PPoD Achieved	56% (n: 43)	91% (n: 32)
Home Deaths	43% (n: 33)	69% (n: 24)
Home Deaths with EMK Use	77%	80%

Audit: Linking EMK to Place of Death



Total Deaths 83

Sarah

- 62yr old female, met gynaecological Ca
- Seen in OPC initially
- 3 visits, slow deterioration, only symptom reflux, no analgesia required
- OT assessment of home done

Goals of Care

- Not wanting any acute investigations
- Comfort measures only in keeping with ACP
- PPoD home

- Non urgent referral HBPC for 2wks time at 3rd OPC appt

- Sarah admitted HBPC RN EMK supplied
- 4hrs later rang (evening) with abdominal pain, RN attended and gave hydromorphone 0.5mg x2 in 1hr with effect from EMK
- PCNP phone consult next morning: Sarah coping with oral BT ?liver capsular pain
- Liaised with GP who was to do a HV, agreed to commence dexamethasone 4mg

Day 1 Review PCNP

- Deteriorating ?mild intermittent delirium ?ability to swallow in near future
- Commenced syringe driver from EMK of hydromorphone and haloperidol after BT of both
- Family educated on SCI BT
- Mild oral candida, restarted nilstat
- Remains on oral dexamethasone 4mg and esomeprazole 40mg

Day 3

- Dexamethasone down to 2mg, liver capsular pain resolved

- Slightly more generalised pain and confusion so SD increased slightly with effect

- BT's of midazolam drawn up from EMK 2.5mgx2 for agitation

Day 5

- Midazolam added to SD to match BT amount in last 24hrs from EMK
- Hydromorphone increased by 1mg to match BT need
- Small oral intake

Day 8: Terminal Phase

- Unconscious
- Only requiring BT's for repositioning
- Terminal phase acknowledged
- Family coping well with support

- Died **day 11** at home with family present

Overview of Sarah

- OPC 76 days
- HBPC 13 days

- 3 different medications from EMK used for 2 different symptoms
- Syringe driver set up from EMK
- Patient died comfortably in PPoD 13 days after first EMK access

So in conclusion….

- EMK is cost effective
- Being use at any stage in HBPC patient admission
- Suspected link with EMK and increasingly met PoD preference including home deaths
- Continued high impact on averting outcomes of care when addressing emergent symptoms

Clinical Limitations

- Supplies of parenteral haloperidol and metoclopramide
- Response bias
- Missing data

Future Considerations/Research

- ?A Parkinson's appropriate EMK
- A ‘terminal’ EMK
- Supporting information in different languages
- Formalised research into correlation with EMK and PPoD
- Focus on factors that prevent achieving PPoD and not using EMK for practice change

Conclusion

The Emergency Medication Kit has proven to be a successful, sustainable change in practice for improved patient outcomes and staff satisfaction

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http://ajh.sagepub.com/

Supporting Family Caregivers With Palliative Symptom Management: A Qualitative Analysis of the Provision of an Emergency Medication Kit in the Home Setting

John P. Rosenberg, Tracey Bullen and Kate Maher

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The Use of Emergency Medication Kits in Community Palliative Care: An Exploratory Survey of Views of Current Practice in Australian Home-Based Palliative Care Services

Tracey Bullen, John P. Rosenberg, Bradley Smith and Kate Maher

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Clinical Methods

Establishing research in a palliative care clinical setting: Perceived barriers and implemented strategies

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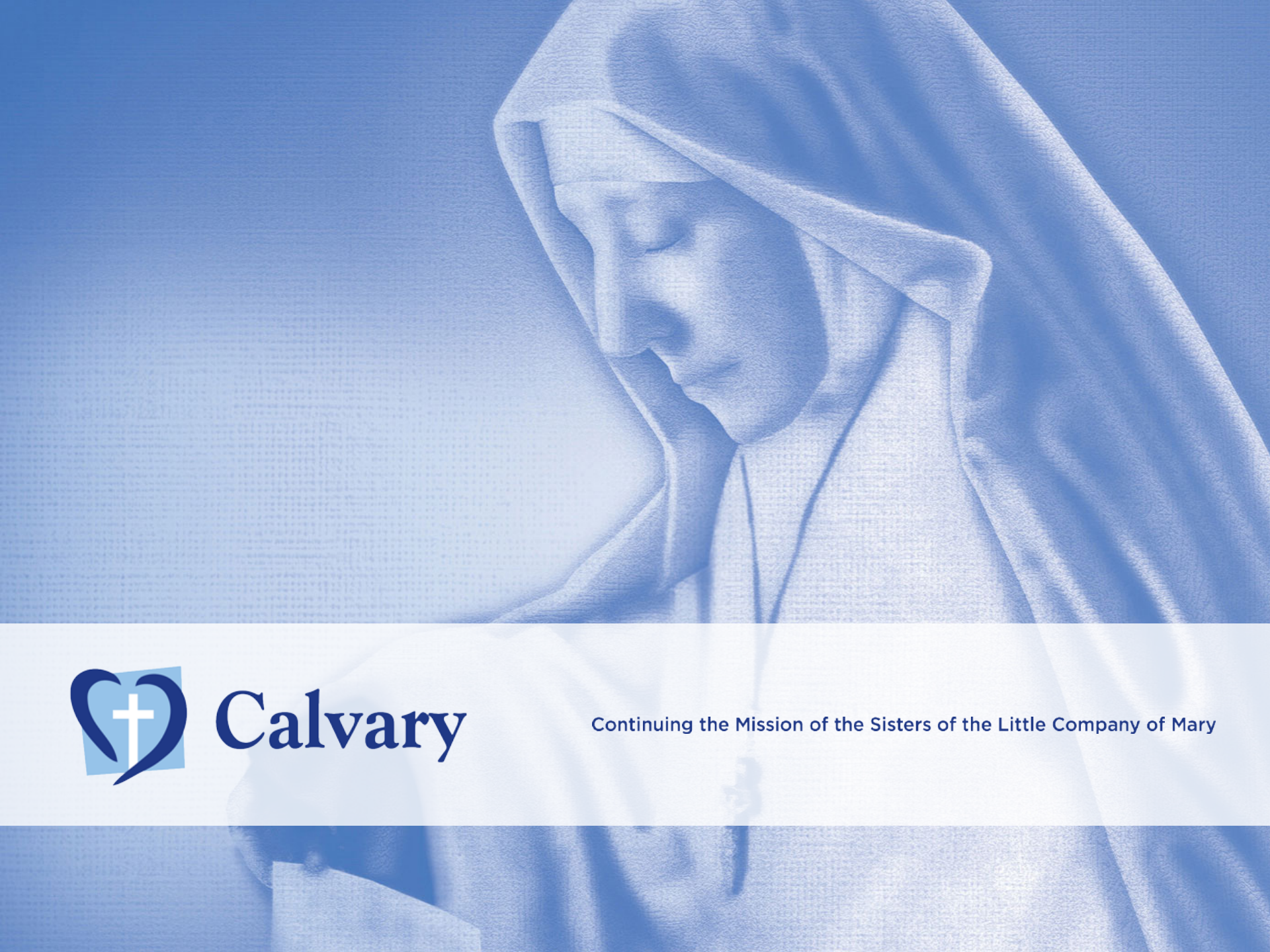
Feedback? Questions?



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