

Economic Evaluation of the Implementation of an Electronic Palliative Care Coordination System (EPaCCS) in Lincolnshire using My RightCare ©

This paper will provide an economic assessment of utilising the My RightCare software as the IT enabler of EPaCCS in Lincolnshire. Demonstrating the benefits, cost saving and the financial investment required for future sustainability.

Background

In 2011 and 2013 the national VOICES (Views of Informal Carers for the Evaluation of Services) survey was completed to ascertain bereaved carers views of the services they had received regarding palliative and end of life care. The outcomes for Lincolnshire were disappointingly poor. Specifically in practice held registers only 27% of patients who had died had been identified, of these only 29% of patients had a non cancer diagnosis. Evidence concluded that those patients on a shared register received better coordination of care, improved patient outcomes and quality experience for carers. To help address the poor outcomes locally within Lincolnshire, the four CCGs commissioned EPaCCS to be implemented as a countywide system for which St Barnabas Lincolnshire Hospice would lead.

Introduction

EPaCCS is a system which facilitates the sharing of essential information between providers. It means that the decisions made between the clinician and patient which are recorded, can be shared and accessed at point of care delivery, across service boundaries regardless of care provider and the time of day or night. It puts the patients' wishes at the centre of their care and helps to create an environment where clinicians (regardless of employer) can work together easily.

Whilst EPaCCS is an electronic means of communication and coordination; the initiative itself is not about deploying an IT solution in isolation, the IT enables the EPaCCS outcomes and anticipated benefits to be achieved. Implementation requires multiple interdependent factors to ensure utilisation and realise patient benefits. These include but are not isolated to, engagement and training, change in clinical behaviours and practice; identifying palliative patients and initiating difficult conversations; recording their choices and wishes, to support future clinical decisions and care delivery.

However the focus of this paper is provide the economic evidence required to enable the decision-making of the four Lincolnshire CCGs; whether to invest financially in the My RightCare software, as the IT enabler of EPaCCS in Lincolnshire, identify the minimum investment required to support the education and training and the administrative support needed for EPaCCS to be sustained using the current model in the county. Recognising that the additional elements (as detailed above) required for successful EPaCCS implementation, are either one off costs or assuming that they will be indirectly met via alternative financial means.

National Context

End of life care has been, and remains, a key and emotive subject within the NHS. In 2015 the Economist Intelligence Unit ranked the United Kingdom as the top in the world for End of Life Care, while still acknowledging that progress could be made in improving “problems in communication or symptom control”. EPaCCS is aimed at improving communication and coordination of care. With an aging population, ensuring a quality of experience at End of Life is a high priority for the NHS.

The recently published document Ambitions for Palliative and End of Life Care, disseminated in September 2015, outlines NHS England’s ambitions for End of Life Care by 2020. The document puts forward eight foundations supporting the six Ambitions for End of Life Care, and these foundations describe a robust EPaCCS solution as a means of achievement of the identified outcomes.

In February 2013 NHS England published an Economic Evaluation of EPaCCS projects, stating that the average hospital death costs £1,480. Combined with Dying Matters assertion that 70% of people wish to die at home an EPaCCS project should save money by reducing unwanted hospital deaths, while improving patient outcomes at end of life care by enabling them to meet their end of life care wishes. NHS England’s Economic Evaluation states that savings from an EPaCCS project could range from £35,910 to £133,200 per year, per 200,000 population¹.

Local Context

In September 2014, the EPaCCS Professional Lead for Lincolnshire undertook extensive scoping of the national pilot sites and those areas that had subsequently had or were in the process of implementing EPaCCS.

The outcomes of the scoping exercise for Lincolnshire are below:

- It is imperative that implementation and future refinement is clinically led to ensure behavioural, cultural and clinical change
- **My RightCare© App is the IT solution of choice – no requirement for current IT systems to be changed.**
- Stakeholder (particularly GP) engagement and CCG endorsement is fundamental
- Information Governance (IG) requires to be addressed early
- Training and education is key (prioritising identification of patients with non cancer diagnoses)
- A phased approach to implementation is required, acknowledging the diversity and size of Lincolnshire
- Dovetailing to LHAC Neighbourhood Teams, Urgent and Proactive Care Programmes
- Identification of additional funding required

My RightCare©

Unlike other solutions, the MyRightCare application focuses on creating a unified care plan for the patient and sharing that amongst all necessary health and social care professionals. The app can not only draw information directly from GP and other provider systems, but also auto-generate a care plan, removing duplication by pulling salient information regarding patient wishes and choices which have already been entered into a proprietary system, quickly and easily. This ensures a good end user experience, which supports wide utilisation, being an IT solution created for clinicians.

Created care plans, are then shared (with consent) across all health care IT systems; primary and secondary care, including urgent care; ambulance and NHS 111 services. The app can work with any Windows based system; this means colleagues in Lincolnshire are not required to change their propriety system. My RightCare has an alerting mechanism, flagging to clinicians who are using their own clinical system, if their patient has a care plan already in place. These functions ensure that the creation and the retrieval of a care plan are efficient and consistent, ensuring that that relevant patient information is available to a clinician regardless of where or when a patient presents, to support appropriate safe clinical decision making and continuity of care.

MyRightCare has all the necessary national IG approval including GP SoC certification; currently the only system nationally to achieve this. Care plans are held on an independent N3 server, making information sharing independent from other platforms; if a patient doesn't wish to share their entire medical history through the existing mechanisms, they can still share the care plan with specific organisations as they choose.

Furthermore a patient portal functionality is also available, with potential to give ownership of the care plan to the patient and their family themselves, as well as non-NHS staff, such as care homes and third sector organisations, pending national guidance from HSCIC being disseminated. Therefore being future proof to ensure the software meets the recommendations of the Personal Health and Care 2020 paper from the Department of Health², contributing to local Digital Road Maps to enable the governments Five Year Forward View³, published in October 2014.

Financial Investment

The four Lincolnshire CCGs committed to the implementation of EPaCCS and provided a financial envelope to do this. However this initial investment assumed that the EPaCCS project would utilise existing IT systems in the county. During the scoping exercise it was identified that by using the My RightCare software the benefits for patients, providers and the system would be significantly increased should the sharing of patient end of life choices and preferences be shared wider than primary care to include those services that provide urgent care too. In addition there would be no requirement for work arounds, with the app being interoperable with all systems and was clinician end user friendly whilst being patient centric, all of which contributed to increased utilisation, resulting in culture and behaviour change, required for benefit realisation.

Whilst this was an ambitious undertaking and delayed deployment of EPaCCS the use of the My RightCare software enabled Lincolnshire to arguably have one of the most sophisticated EPaCCS in the

country. This unsurprisingly resulted in additional financial investment in what is considered to be a difficult financial climate both on a national and local level.

To this end, St Barnabas applied for grant funding to the NHS England Nursing Technology Fund. This was successful, with £331,000 being awarded to financially support the implementation of My RightCare software across the county. The funding specifically included the set up costs of interfacing with up to eight systems, the purchasing of 15,000 care plans for those palliative patients in the last year of life and 15 tablet devices to support mobile working.

Lincolnshire has a population of 750,000 people, on average it is currently recognised that 1% of the population will die each year, according to national indicators. Therefore it is anticipated that the 15,000 care plans purchased with the grant funding will ensure there are care plans available for those identified as in the last year of their life for approximately two years. However it is assumed due to not all deaths being predictable and those that are, often being difficult and complex to identify, that the care plan stock will last for a longer period of approximately three years. It is at this point that investment will be required from the Lincolnshire CCGs to financially support the ongoing purchase of care plans to share palliative patient's preferences and choices regarding their care, across service providers in the county.

Training and Education

To complement the utilisation of the My RightCare plans, there will be additional funding required to support the training and education, in the form of revision and ongoing printing of the newly developed brochure and maintenance of Lincolnshire's End of Life website. The brochure and website were developed collaboratively by specialist palliative colleagues in LCHS, ULHT and St Barnabas and was coordinated by the EPaCCS team. The brochure and website are organisationally agnostic and are aimed at health and social care professionals; providing information regarding best practice for patients and their carers during the last year of their life, the services available in Lincolnshire and how to refer. Additionally the website also contains national guidance and resources and will have an area for the general public too. This has been positively received by varying organisations and groups, in particular care homes, LPfT, community ward staff and Adult Social Care colleagues. The PDF of the brochure can be found using this link: <http://www.eolc.co.uk/uploads/end-of-life-care-brochure.pdf> and is located on the Lincolnshire End of Life website.

Administration

The EPaCCS register will be held in the Palliative Care Coordination Centre (PCCC), hosted by St Barnabas, on behalf of the CCGs. The PCCC will monitor the use and quality of the My RightCare care plans and generate reports on its use for each CCG. In addition to providing ongoing evidence for refinement and implementation of EPaCCS the PCCC will also support patients and carers proactively. The maintenance and updating of the Lincolnshire website will also be carried out in the PCCC, ensuring that any public enquiries are answered and the content of the website remains relevant and up to date.

Table 1 below shows the annual investment required to meet the ongoing costs of EPaCCS in Lincolnshire, using the current model.

Table 1

Resource	Purpose	Cost Yr 1	Cost Yr 2	Cost Yr 3	Assumptions
Refinement, updating and printing of End of Life brochure	Up to date resource for health and social care professionals in Lincolnshire	£ 5080	£ 5208	£ 5340	2000 x copies per yr 2.5% increase per yr (based on Bank of England average inflation figure)
PCCC EPaCCS Coordinator 1 x WTE	Administration	£ 20,256	£ 20,762	£21,281	Inc. of on costs@ 22.5% 2.5% increase per yr
My RightCare plans	Sharing pan system patient care preferences wishes and choices	£45,000	£45,000	£45,000	0.5% population £12 per plan My RightCare early implementer discounted price
Total		£ 70,336	£70,970	£71,621	

Benefits

The benefits of implementing EPaCCS within Lincolnshire are widespread and include those for patients, CCGs, providers and the system. Fundamentally the aim of EPaCCS is to improve the coordination and quality of care for patients at the end of life.

The anticipated benefits and outcomes of EPaCCS in Lincolnshire are:

- Reduction in 999 ambulance dispatches
- Reduction in unscheduled admissions to hospital resulting in death
- Reduction in hospital readmissions
- Reduction in NHS 111 conveyance to see GP next working day
- Increase in Deaths in Usual Place of Residence (DiUPR)
- Increased number of patients identified as palliative, particularly those with a non cancer diagnosis
- Increased number of carers identified and supported
- Increase number of patients with an advance care plan
- Improved equitable access to palliative and end of life care services
- Improved quality outcomes for patients and carers
- Facilitate achievement of preferred place of care and death

- Improved co-ordination and continuity of care
- Improved communication across all providers
- Fully integrated with and embedded in Lincolnshire Health and Care
- Encourage self help and willingness to self care at home
- Support for seven day and out of hours working
- Improved palliative care knowledge of frontline staff

However it is acknowledged for the purposes of this paper and of QIPP, the quantitative benefits will be the focus for which the financial information will be provided.

The following information in italics is taken from the Economic Evaluation of the Electronic Palliative Care Coordination System (EPaCCS) Early Implementer Sites published May 2013 by NHS Improving Quality. These are the anticipated generic cost savings resulting from the implementation of an EPaCCS and will be realised by the direct increase in Death in Usual Place of Residence (DiUPR).

For each additional Death in Usual Place of Residence, it is assumed that there is a corresponding cost of support in the community. For the purposes of Lincolnshire, it is anticipated that these potential costs will either not materialise or be met by the work being undertaken by Lincolnshire Health and Care (LHAC).

The National EoLC Programme publication 'Reviewing end of life care costing information', published in September 2012, identified the mid-point of End of Life Care when provided as an alternative to dying in hospital at £2,107. However, estimates for the cost of an end of life care episode in hospital vary:

- 1. £2,506 is used by NICE and is the basis for QIPP calculations. This gives a saving of **£399** per saved admission ending in death.*
- 2. £3,065 is the mid-point in the 'Reviewing end of life care costing information' report noted above. This gives a saving of **£958** per death outside of hospital.*
- 3. £3,587 is the latest evidence for the average cost of an unscheduled admission ending in death for the evaluation sites in this study, giving a saving of **£1,480**.*

Sarah Furley (2014) having studied end of life care in hospital over the last six years in Lincolnshire estimates that the county's average cost of an unscheduled admission ending in death is approximately £3,500.

The costs and savings are modelled in Table 2 below assuming that 330 deaths in acute care can be prevented, as suggested by the EPaCCS Economic Evaluation (2013) paper.

Table 2

Please note that for the purpose of this report the 2012 published figures will be increased by 2.5% per year based on Bank of England average inflation figure, to ensure that they can be accurately comparable in 2016.

Cost of end of life care episode in hospital	Assuming an alternative to dying in hospital costs £2,318, the savings are;	Assuming that the current services (via LHAC work) absorb the additional activity in the community without additional investment, the savings are;
£2,757 used by NICE	£144,837	£909,678
£3,372 used by National EoLC Programme	£347,754	£1,112,595
£3,946 evidenced by EPaCCS Implementer sites	£537,240	£1,302,081

By using the My RightCare (MRC) software as the IT enabler for the Lincolnshire EPaCCS it is anticipated that in addition to the predicted generic cost saving relating to increasing the DiUPR , there will be the following saving in relation to reducing the number of:

- Ambulance dispatches in the county
- A & E attendances
- NHS 111 conveyance to see GP

The MRC app is able to inform urgent care staff when there is a care plan in place for a patient, by having read access to this information, it has allowed patient wishes and preferences to be considered at the point of contact and subsequently has allowed an alternative appropriate means of meeting patient need to be considered, inline with patient preferences and wishes.

Table 3: Ambulance Dispatch per CCG

CCG	Time Period	Prior to EPaCCS	Post EPaCCS	Number reduced by	Cost saving @ £220 per dispatch
West					
East					
South West					
South					

Table 4: A & E Attendances per CCG

CCG	Time Period	Prior to EPaCCS	Post EPaCCS	Number reduced by	Cost saving @ £114 per attendance
West					
East					
South West					
South					

Table 5: NHS 111 Conveyance to see GP per CCG

CCG	Time Period	Prior to EPaCCS	Post EPaCCS	Number reduced by	Cost saving @ £25 per GP attendance
West					
East					
South West					
South					

It is assumed due to the lack of reported data specific to palliative and end of life care patients, that the reductions in ambulance dispatch, A & E attendances and NHS 111 conveyance to see a GP is consequential to the implementation of EPaCCS, however it is recognised there maybe other contributing factors, particularly around the LHAC work.

Conclusion

Comparison of the total running costs of My RightCare, with the total amount that has been saved; will clearly articulate the monetary benefits of continuing with the My RightCare solution, as the IT enabler of EPaCCS in Lincolnshire. This economic evidence will support the decision-making of the four Lincolnshire CCGs, as whether to invest financially in the My RightCare software to sustain the current model of implementation.

It is unfortunate that due to delays with National process that deployment of the software was delayed, so actual data was not able to be recorded within this paper, however will be added at a later date prior to submission the local CCGs.



*This case study was completed by **Louise Price**, Professional Lead EPaCCS (Palliative and End of Life care) St Barnabas Lincolnshire Hospice **in March 2016**.*

Louise successfully completed a collaborative learning programme designed to empower nurses to understand, generate and use economic evidence to continuously transform care. The programme was delivered by the Royal College of Nursing and the Office for Public Management, funded by the Burdett Trust for Nursing and endorsed by the Institute of Leadership and Management.

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