Case study database – Electronic Palliative Care Coordination Systems (EPaCCS)	
Title of case study	**EPaCCS Worcestershire**
The issue	Professionals in Worcestershire who wanted to create and share end of life care plans relied on manual inputting of information and sharing via email and fax. EPaCCS has made this process more efficient and reliable. A primary care Local Enhanced Service had been commissioned previously for GPs to share palliative care information, and communication /sharing of this information has been improved through the use of EPaCCS.
Intervention chosen	Overview The Worcestershire EPaCCS project is part of the 'Worcestershire Well Connected' health and social care transformation programme. EPaCCS has been in place since September 2016 in Worcestershire and records are being shared between health and care professionals across the region. The project is led by NHS South Worcestershire Clinical Commissioning Group (CCG) for all of Worcestershire on behalf of NHS Redditch and Bromsgrove CCG and NHS Wyre Forest CCG. Users EPaCCS records can be created for all patients in Worcestershire who are considered to be in the last year of their life and who have consented for their records to be shared between clinical staff. The records are created by the patient's GP. They are then available to be viewed and amended by healthcare professionals in the following organisations: • West Midlands Ambulance Service NHS Foundation Trust • CareUK out of hours service (including 111) • Worcestershire Acute Hospitals NHS Trust • Worcester Health and Care NHS Trust • Hospice Day Centres, Kemp Hospice, Primrose Hospice, St Richard's Hospice The EPaCCS records hold important information about patients, including their diagnosis, preferred place of death, DNR (do not resuscitate) status, presence of anticipatory drugs in the home and key contact details. It is compliant with the EPaCCS Information Standard SCCI1580. The system also gives GPs the option of creating a 'special note' about the patient – this can be created in addition or instead of the EPaCCS form. The special note can be created for any patient not just those at end of life. This note

will be shared with the out of hours (OOH) and 111 staff in the same way as the EPaCCS record and will mean administrators will not have to notify the OOH service and 111 separately.

Within each organisation the level of access which different staff members have for viewing and editing the records is dictated by role-based access controls. These controls can be configured by administrators in each service so each organisation can manage the set of users on the system and the roles they have.

GP practices are notified when a healthcare professional outside a GP practice updates /amends an EPaCCS form so they are kept aware of changes. The system notifies the West Midlands ambulance service when an EPaCCS form is created.

Technical solution
The Worcestershire EPaCCS solution has been developed by Black Pear Software. In general practice, once the Black Pear 'Pyrusium' application is downloaded it integrates with EMIS though single sign-on. All the practices in the county use EMIS. GPs create an end of life care plan using a custom built form and the record is saved in both the GP system and in a central repository. Because of the single sign-on and custom built form, the GP's user experience is solely through EMIS rather than switching between two different systems.
The central repository is hosted by Amazon Web Services with connectivity provided by Redcentric.

For other areas (hospices, acute and community settings) access to the record is available through login from any modern web browser, providing they are N3 connected.
For Information Governance, data sharing agreements between the various organisations providing palliative care across Worcestershire are in place and used for sharing EPaCCS records.

How it was implemented	Implementation Worcestershire was the first area to use a Black Pear EPaCCS system. The project therefore had a long development period and testing phase. In September 2016 the system was launched to all 67 GP practices in the county, hospices, the regional ambulance service, and specialist palliative care staff working at the acute provider. The CCG initially funded a 12 month licence for the system which was renewed in September 2017. Formal training was not required due to the intuitive nature of the system. In addition Black Pear training guides and online videos were used by practitioners to support implementation. Visits were made by the project team to a large number of practices during launch. A key contact in the Commissioning Support Unit helps organisations with specific queries about

	using the system and any tailored training needs.
	Maintenance The county has a Clinical Reference Group (CRG) which suggests changes to improve the system. Local clinicians, GPs, GP practice staff, local hospital providers and hospices form part of the CRG, sharing their feedback and ideas on how the fields within the EPaCCS form might be changed and improved. The CCGs are in regular communication with Black Pear regarding system updates, issues and changes to the system. This information is then communicated out to local GP practices and other providers/organisations via email or newsletter.
Impact	To date the project is considered a success, with 1662 EPaCCS records created across Worcestershire after 14 months of the system being implemented, and 366 special notes created on the system during this period. The system has increased communication between providers, decreased the amount of GP administration time and ensured patients plans and wishes were available in a crisis to all relevant providers. Feedback from GPs and other users from a recent survey on EPaCCS in Worcestershire included the following comments: • 'System looks very clear and is user friendly' • 'Seems to reduce time it takes to record end of life details, it seems to be more efficient and not so time consuming with various forms and faxing' • 'I think it reduced the time and effort involved in sharing info - or I think it will do as I get more familiar with it' • 'Special notes have been very useful and the practice is feeling very positive particularly with late results' The system has demonstrated the following: • Improved communication between providers • Decrease in the amount of GP admin time to communicate • Ensures patients plans and wishes are available in a crisis to all relevant providers
Conditions for success	A key factor which has contributed to the success of EPaCCS in Worcestershire has been making the system work for clinicians in a straightforward and intuitive way. The full integration with GP systems means that the EPaCCS record is available via single sign-on, standard patient data is automatically pre-populated and every record is saved on the cloud without the need to manually share it with other professionals. An additional key to success has been the active involvement

of clinical champions in the project right from the start. The project team decided to prioritise GPs as the key stakeholders and this has been important in the design of the system. Support was gained from the local medical committee in the early stages of the project and the CRG has helped continued clinical involvement in the development of the system.

Finally, the project has benefited from alignment with existing programmes of work across Worcestershire. Being established as part of the 'Worcestershire Well Connected' transformation programme has helped to make it a part of the county's strategy for coordinated care between providers. The CCG had also previously commissioned a Local Enhanced Service for end of life care planning in primary care, which the EPaCCS project is complimentary to.

| **Learning from key challenges** | Key lessons learned
• Communication and engagement with other organisations is key
• Involvement of all stakeholders from the beginning of the project and throughout is required
• Make it work for clinicians and their workflows – one click and a single sign-on key
• Patient and public engagement is important
• Engagement with local health organisations and individuals to sell the value of the project and the system – getting everyone on board from the start
• Identify a named lead for each organisation who will progress the work in their particular organisation
• Create a log of feedback received and requests for changes to system
• Regular communication with Black Pear/provider of the system to iron out problems and discuss issues.

Challenges
Currently, an EPaCCS record can only be created within general practice. The project will expand in the future so EPaCCS records can be created outside of general practice. This is dependent upon Information Governance agreements to enable interoperability with NHS Spine. This would allow records to be created outside of general practice without creating duplicate records for the same patients.

Currently usage in the community and in acute care is limited to specialist palliative care teams. Expansion to community nursing and district nursing teams is under consideration, combined with an increased usage of the long term care planning notes capability within the Black Pear software. Similarly, social care is not currently involved and expansion to these staff groups could be possible.

Future plans
Future plans in Worcestershire are based around expanding the utility and coverage of shared care records in |

| | organisations across the county and enabling other users, in addition to GPs, to create an EPaCCS record.

Uptake of the Black Pear software by neighbouring organisations has potential to facilitate shared care records at a regional level. CCGs in Herefordshire, Coventry and Warwick are beginning to use the system. They share the same ambulance provider as the Worcestershire CCGs and Herefordshire CCG is part of the same Sustainability and Transformation Partnership. Developments in this area will be supported by the inclusion of Black Pear on the NHS Digital GP Systems of Choice (GPSoC) framework to enable record sharing within a mixed economy of GP systems including EMIS Web, INPS Vision and TPP SystmOne. |
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Please note that the Named contact above is likely to change in the next few months due to changing roles/a restructure at the CCGs. http://www.southworcsccg.nhs.uk/contact-us/ |
| **Link to useful resources** | |