The tele-empathy opportunities in medicine are far-reaching. Tele-empathy can be valuable for clinical manifestations that can be seen and interpreted through the lens of data science, which includes many of our senses (Table 1). However, tele-empathy is more than just symptom simulation. It has the potential to improve our ability to control patient symptoms by allowing us to fine-tune and titrate treatments. We could, additionally, record data from patients on a specific treatment, and use machine learning to digitise the treatment through mathematical modelling. This could enable us to not only sense what the patient is experiencing, but to also predict what effect specific treatment may have on a patient via the digitised treatment. This has tremendous implications for future research and clinical trials.

Our research group recently initiated a study that aims to quantify the level of empathy experienced by neurologists both before and after use of the PD tele-empathy device. Future studies will measure the longitudinal retention of empathy. In addition, new tele-empathy devices for diseases where the need for empathy is great are currently in development, including diabetes (peripheral neuropathy), chronic obstructive pulmonary disease (shortness of breath) and pruritus (dermatologic and systemic diseases).

Tele-empathy can harness the power of technology to cater to specific needs within a wide range of clinical areas, stimulating new knowledge and insights in the process. This fosters invaluable opportunities such as the cultivation of empathy, more precise treatment titration, and more accurate treatment result predictions, benefitting physicians, caregivers and, more importantly, patients themselves. ■

Supplementary material

Additional supplementary material may be found in the online version of this article at http://futurehospital.rcpjournal.org/:

S1 – Video showing EMS inducing involuntary muscle activity to mimic a patient's Parkinson's disease tremors in real time.

Conflicts of interest

Yan Fossat, with Klick Inc, has a patent pending on the SymPulse PD tele-empathy device. The other authors have no conflicts of interest to declare.

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References

1 Mercer SW, Reynolds WJ. Empathy and quality of care. *Br J Gen Pract* 2002;52:S9–12.
2 Neumann M, Scheffer C, Tauschel D *et al.* Physician empathy: definition, outcome-relevance and its measurement in patient care and medical education. *GMS Z Med Ausbild* 2012;29:Doc11.
3 Halpern J. Empathy and patient-physician conflicts. *J Gen Intern Med* 2007;22:696–700.
4 Deladisma AM, Cohen M, Stevens A *et al.* Do medical students respond empathetically to a virtual patient? *Am J Surg* 2007;193:756–60.

Public health in hospitals – can informatics bridge the gap?

The NHS England *Five Year Forward View* emphasised the need for a 'radical upgrade in prevention and public health'.[1] Community health and social care are both engaged in preventative care, but hospitals also play a key role in this agenda.[2] In 2014–15 alone, hospitals in England served 16 million finished admission episodes and over 100 million outpatient appointments.[3] These encounters represent huge opportunities to provide health promotion at scale to individuals at high risk of preventable morbidity and mortality.

There are a number of barriers to health promotion in hospitals, such as limited resources and a tendency to focus on diagnosis and treatment of specific diseases, rather than risk factors. This is reflected in the findings of the national health promotion in hospital audits in England, which found that few hospitals met the standards for assessment and health promotion practice for important modifiable risk factors, including smoking and alcohol misuse.[4]

Clinical information systems may help overcome some of these barriers by facilitating the accurate documentation of risk behaviours in electronic health records. Standards are required to ensure these data are validated, consistent and clinically useful. A national project is being undertaken by the University of Birmingham and Queen Elizabeth Hospital Birmingham, in partnership with the Royal College of Physicians Health Informatics Unit, to develop national data standards for recording alcohol and tobacco use in electronic health records.[5] National consultation with patients, healthcare professionals, public health professionals, IT system suppliers and informaticians, as well as literature reviews, and pilot work are being undertaken to ensure the standards are evidence and consensus based, acceptable to end users, and implementable.

The objectives of these standards are to record information on alcohol and tobacco use that:

- enables healthcare staff and clinical information systems to identify at-risk patients, and provide preventative and therapeutic interventions
- is relevant to public health and healthcare organisations to inform commissioning and delivery of preventative services and clinical audit of health promotion practices
- enables epidemiological and clinical research on alcohol and tobacco consumption among patients in primary and secondary care
- enables patient-relevant information to be shared across the healthcare system to improve coordination and continuity of care.

Implementation of these standards could enable the systematic identification of patients with ongoing exposure to modifiable behavioural risk factors and automated delivery of evidence-based interventions. For example, documentation of current smoking in an electronic health record could trigger an automated SMS message to patients containing advice on how to access NHS smoking cessation services. Recording harmful alcohol use could automatically prompt an alcohol support worker to give brief advice to patients prior to discharge. Use of health informatics in this way could potentially be more cost-effective than solely relying on healthcare staff to deliver health promotion and could be an efficient gateway to preventative services.

The development of standards for clinical information recording and better use of health informatics offers a means to improve quality and outcomes for both individual patients and the wider population, aligning clinical and public health aims. ■

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The authors have no conflicts of interest to declare.

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References

1 NHS England. *NHS Five Year Forward View*. London: NHS England, 2014.
2 Wright J, Franks A, Ayres P *et al*. Public health in hospitals: the missing link in health improvement. *J Public Health Med* 2002;24:152–5.
3 Health and Social Care Information Centre. *Provisional Monthly Hospital Episode Statistics for Admitted Patient Care, Outpatients and Accident and Emergency Data – April 2014 to March 2015*. London: HSCIC, 2015. http://content.digital.nhs.uk/catalogue/PUB17794 [Accessed 11 August 2017].
4 Lee DJ, Knuckey S, Cook GA. Changes in health promotion practice in hospitals across England: the National Health Promotion in Hospital Audit 2009 and 2011. *Journal of Public Health* 2013;36:651–7.
5 Royal College of Physicians. Alcohol and tobacco data standards consultation. www.rcplondon.ac.uk/news/alcohol-and-tobacco-data-standards-consultation [Accessed 11 August 2017].

Cost of effective discharge planning: how long does it take to complete a PEACE plan?

Editor – Studies show that older persons and/or those close to them would welcome discussions about potential future medical deteriorations in their health, if done sensitively and in plain language. Such advance care planning is more difficult or, in some cases, impossible in the presence of moderate to severe cognitive impairment. However, where an older person lacks the appropriate mental capacity for such discussions, the Mental Capacity Act 2005[1] allows for best interest planning between those responsible for care and those close to the older person. PEACE (ProactivE Advisory CarE) is a future care planning process that builds on the Mental Capacity Act and can be used for future care planning for older persons who have appropriate capacity and those who do not, and we have reported on this in a service review.[2] The key findings of these reviews were that older people who were discharged to a nursing home with a PEACE plan were less likely to die outside of hospital and, compared with older persons without formalised medical care planning, need on average far fewer hospital bed days for subsequent hospital readmissions. These finding were, we argued, important as they provided surrogate measures to indicate that older persons with a PEACE plan may receive better end-of-life care.

The time to arrange and undertake the necessary discussions and paperwork for proactive care planning such as PEACE is often given as the reason that prevents clinicians from engaging in anticipatory care discussions with older people and/or those close to them, especially in the hospital setting. For this reason, we conducted an audit of the average time taken for the various components of a PEACE process (as per the policy in our trust) to be carried out. Some of these components – such as the mental capacity assessment of the older person – require clinical input, while other components – such as uploading completed forms onto various databases – require administrative support. This is important as the monetary costs of these components will be different and their differentiation can help when planning service developments.

Table 1 shows that the range and average time taken for nine different components of our local PEACE process. It should be noted that at the time of the audit most documentation was faxed to outside sources as our trust and local organisations were not universally on NHS mail; this is likely to have made some of the administrative times longer than is actually needed. The average time to undertake clinical assessments, discussions and documentation is approximately 2 hours. While this might appear a long time, a preliminary comparison between older people with and without PEACE plans being discharged from out trust (unpublished data) suggests this may save up toe 3 days of future hospital admission time on average, and thus

Table 1. Time to complete nine different aspects of the PEACE process

	Time taken (minutes)	
Category	**Range**	**Mean**
Mental capacity assessment	15	15
Patient discussion/review	15–30	17
Lasting power attorney/family discussion	15–75	27
Writing of PEACE document	15–75	35
Nursing home discussion	15	15
General practice discussion	15	15
Hospice at home referral	15–30	17
Other documentation (faxing)	15–30	24
IBIS (ambulance)	30	30

IBIS = Intelligence Based Information System; PEACE = ProactivE Advisory CarE