

# DELIVERING SMARTCARE – USING INNOVATIVE TECHNOLOGY IN PRESSURE ULCER PREVENTION

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## Introduction

The Five Year Forward View set out the incredible challenge facing the NHS; expensive to treat conditions are on the rise, people are living longer and we now need to provide more care than ever before (NHS England 2014). The strategy’s Next Steps (NHS England 2017) document and the Making IT Work report (Wachter 2016), make clear that to meet this demand, reduce pressure on services and continue to provide high quality care, the NHS must make better use of information and technology.

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Technologies such as telehealth, telecare, telemedicine, telecoaching and self-care apps have the potential to transform the way people engage in and control their own healthcare, empowering them to manage it in a way that is right for them. They also have the potential to support clinicians delivering care in remote places or where it is not possible to have on site care 24 hours a day such as the community / home care setting. (<https://www.england.nhs.uk/ourwork/qual-clin-lead/tecs/> 2017).

Equally technology can assist in gathering data, collecting information that allows a more thorough assessment of a patient’s condition or risk of a particular condition such as pressure ulcers.

Traditionally pressure ulcer risk assessment is based on asking patients questions relevant to risk factors or observing their behaviour – for example observing their mobility, however this information takes time to collect, may not always be reported accurately by patients and is subject to variation as the patient’s condition changes with time.

If a patient is identified as being at risk of developing pressure ulcers perhaps the two most common interventions are the use of a specialist support surface and the regular repositioning of the patient to assist in redistributing their weight away from bony prominences. However it is well recognised that many of the widely used risk assessment tools (RATs) over predict risk and therefore patients can be placed on higher specification equipment than is required – to err on the side of caution and also patients are generally repositioned on a 2 hourly basis although there is no clear underpinning scientific basis for this approach (NPUAP, EPUAP, PPPIA 2014).

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In a busy ward or in the community setting it can be difficult to monitor a patient’s movement and should their condition change and they become less mobile this may go undetected for many hours until the next visit by a carer or health professional which is highly likely to result in the occurrence of a pressure ulcer.

Mercury Advance SMARTcare® (Direct Healthcare Group) is an evolution in pressure care technology that offers effective dual therapy in a single surface by combining advanced, clinically proven technologies previously only available in separate hybrid surfaces. With the addition of a SMARTresponse® power unit, Mercury Advance SMARTcare® can be programmed to either step up patient care automatically or remotely when a period of no patient movement has been detected. SMARTresponse® can also pro-actively communicate ‘real time’ patient information directly to the clinician, via either a mobile device message or a desktop ward view.

Not only does the equipment keep the patient safe it also more accurately identifies the frequency with which a patient makes a significant enough movement to redistribute their own pressure – this information can be used to help determine the frequency of repositioning, potentially extending the time between turning to allow the patient greater comfort or longer periods of rest / sleep, particularly overnight.

Using technology in this way could help identify the best package of care for a patient, balancing appropriate repositioning with maintaining adequate rest. It also supports patients who are in environments with reduced care packages as should their condition deteriorate, it will both increase the sophistication of the support by changing to dynamic mode and also alert the clinician that the patient needs additional care.

## Conclusion

Previous studies have evidenced the role hybrid support surfaces play in reducing pressure ulcer incidence, delivering benefits to patients and staff, and a step change in care delivery (Fletcher et al 2016, McGrath et al 2016). It is vital to continue to learn how high quality equipment and advances in technology can support the delivery of evidence based care, delivering improved patient outcomes, making better use of clinical resources improving operational effectiveness.

**References**  
Fletcher J, Tite M and Clark M (2016) Real – world evidence from a large – scale multisite evaluation of a hybrid mattress Wounds UK 12 (3) 78 – 85  
McGrath A, Fletcher J and Tite M (2016) Implementing hybrid support surfaces: key components for a step change in pressure ulcer prevention Wounds UK 12 (4) 78 – 84  
National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance (2014) Prevention and Treatment of Pressure Ulcers: Quick Reference Guide. Available at: <http://bit.ly/20eyonV>  
NHS England (2014) The Five Year Forward View Available from <https://www.england.nhs.uk/publication/nhs-five-year-forward-view/>  
NHS England (2017) Next steps on the NHS Five year forward view  
Wachter RM (2016 ) Making IT work: Harnessing the power of health information technology to improve care in England Available from : <https://www.england.nhs.uk/digitaltechnology/info-revolution/wachter-review/>