

WoundTec HTC

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Appreciative Inquiry

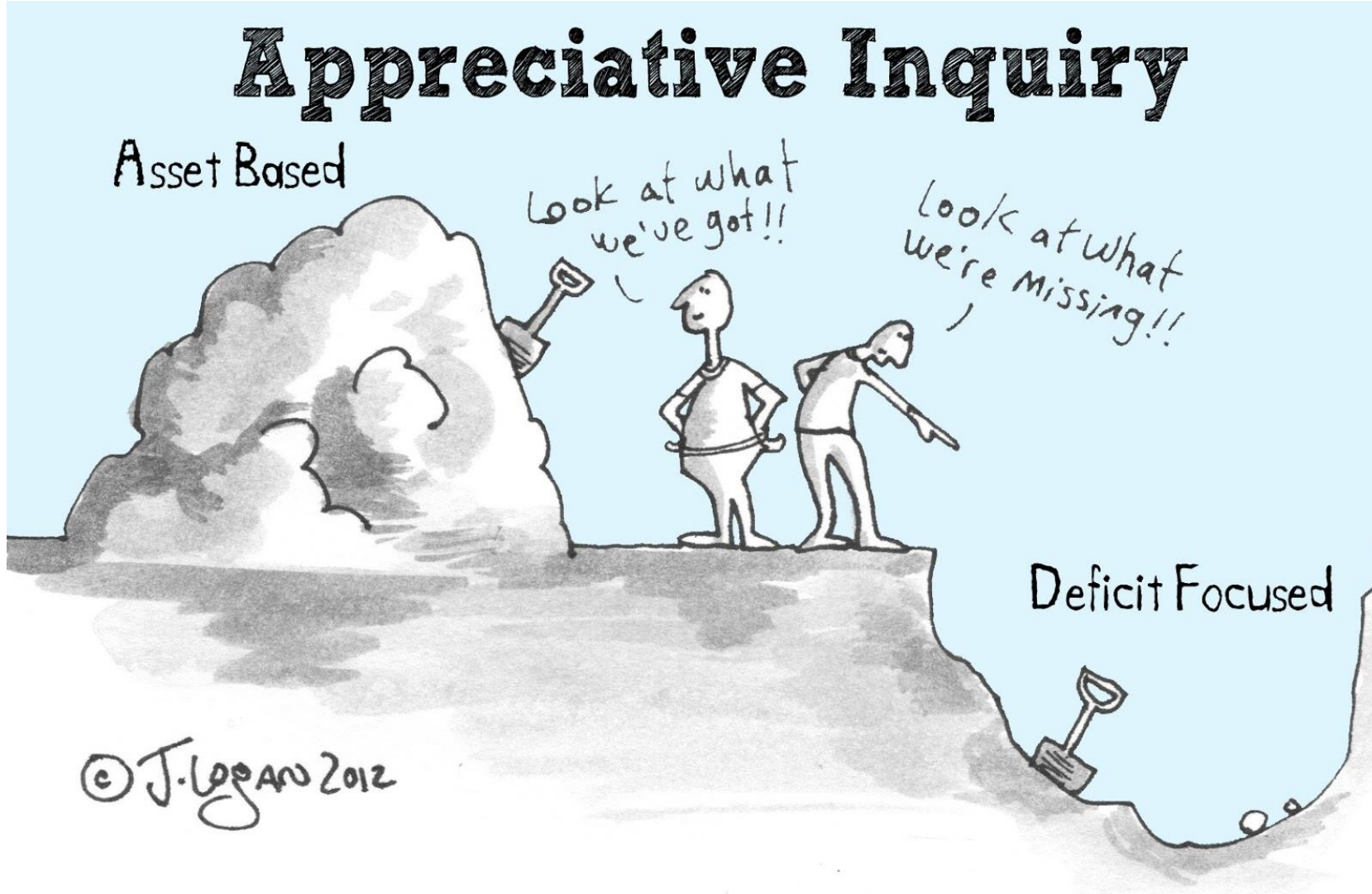
Asset Based

Look at what we've got!!

Look at what we're missing!!

Deficit Focused

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BMJ Open Health economic burden that wounds impose on the National Health Service in the UK

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ABSTRACT

Objective: To estimate the prevalence of wounds managed by the UK's National Health Service (NHS) in 2012/2013 and the annual levels of healthcare resource use attributable to their management and corresponding costs.

Methods: This was a retrospective cohort analysis of the records of patients in The Health Improvement Network (THIN) Database. Records of 1000 adult patients who had a wound in 2012/2013 (cases) were randomly selected and matched with 1000 patients with no history of a wound (controls). Patients' characteristics, wound-related health outcomes and all healthcare resource use were quantified and the total NHS cost of patient management was estimated at 2013/2014 prices.

Results: Patients' mean age was 69.0 years and 45% were male. 76% of patients presented with a new wound in the study year and 61% of wounds healed during the study year. Nutritional deficiency (OR 0.53; $p < 0.001$) and diabetes (OR 0.65; $p < 0.001$) were independent risk factors for non-healing. There were an estimated 2.2 million wounds managed by the NHS in 2012/2013. Annual levels of resource use attributable to managing these wounds and associated comorbidities included 18.6 million practice nurse visits, 10.9 million community nurse visits, 7.7 million GP visits and 3.4 million hospital outpatient visits. The annual NHS cost of managing these wounds and associated comorbidities was £5.3 billion. This was reduced to between £5.1 and £4.5 billion after adjusting for comorbidities.

Conclusions: Real world evidence highlights wound management is predominantly a nurse-led discipline. Approximately 30% of wounds lacked a differential diagnosis, indicative of practical difficulties experienced by non-specialist clinicians. Wounds impose a substantial health economic burden on the UK's NHS, comparable to that of managing obesity (£5.0 billion). Clinical and economic benefits could accrue from improved systems of care and an increased awareness of the impact that wounds impose on patients and the NHS.

INTRODUCTION

Patients requiring wound care can be found in the community, secondary care and in long-term care institutions and range from

Strengths and limitations of this study

- This study estimated the health outcomes, resource implications and associated costs attributable to managing wounds in 2012/2013 using real world evidence obtained from The Health Improvement Network (THIN) database (a nationally representative database of clinical practice among >11 million patients registered with general practitioners in the UK).
- The estimates were derived following a systematic analysis of patients' characteristics, wound-related health outcomes and all community-based and secondary care resource use contained in the patients' electronic records.
- Computerised information in the THIN database is collected by general practitioners (GPs) for clinical care purposes and not for research. Additionally, prescriptions issued by GPs and practice nurses are recorded in the database, but it does not specify whether the prescriptions were dispensed or patient compliance with the product.
- The analysis does not consider the potential impact of those wounds that remained unhealed beyond the study period. Nor does it consider the potential impact of managing patients with wounds being cared for in nursing homes. The THIN database may have under-recorded use of some healthcare resources outside the GP's surgery. However, the impact of this was addressed in sensitivity analyses.

infants to the elderly. The patient population with wounds is managed across the spectrum of different healthcare disciplines that includes general practice, specialist physicians, surgeons, nurses and allied healthcare practitioners, such as podiatrists.¹⁻³

Wound care should be viewed as a specialised segment of healthcare that requires clinicians with specialist training to diagnose and manage appropriately.^{4 5} However, the evidence suggests this is not the case.¹⁻³ Moreover, it has been suggested that better wound care, such as effective diagnosis and treatment and effective prevention of wound

The NHS spends:
£5.3 billion per year on patients with wounds
£1 billion per year on patients with post-operative wounds

- 2.2 million wounds per year
- 28.6 million practice nurse visits
- 10.9 million community nurse visits
- 7.7 million GP visits
- 3.4 million hospital outpatient visits
- 262.2 million dressings
- 73.4 million bandages
- 9 million compression bandages

- Venous leg ulcers
- Pressure sores
- Diabetic foot ulcers



Clinical problems faced

- Uncertainty re. optimum time to change dressings
- Difficult to diagnose wound infections
- Difficult to detect early pressure damage to skin

Uncertainty re optimum dressing change timing

- Gold standard: moist wound healing
- dressings can cope with a certain amount of exudate
- Less exudate: too dry
- More exudate: too wet
- Bacterial growth rate: high or low?





Wound infection

- Discomfort
- Delayed wound healing
- Increased cost
- Increased other resources
- Tissue loss
- Worse scarring
- Worse functional result
- Can lead to death!

contamination

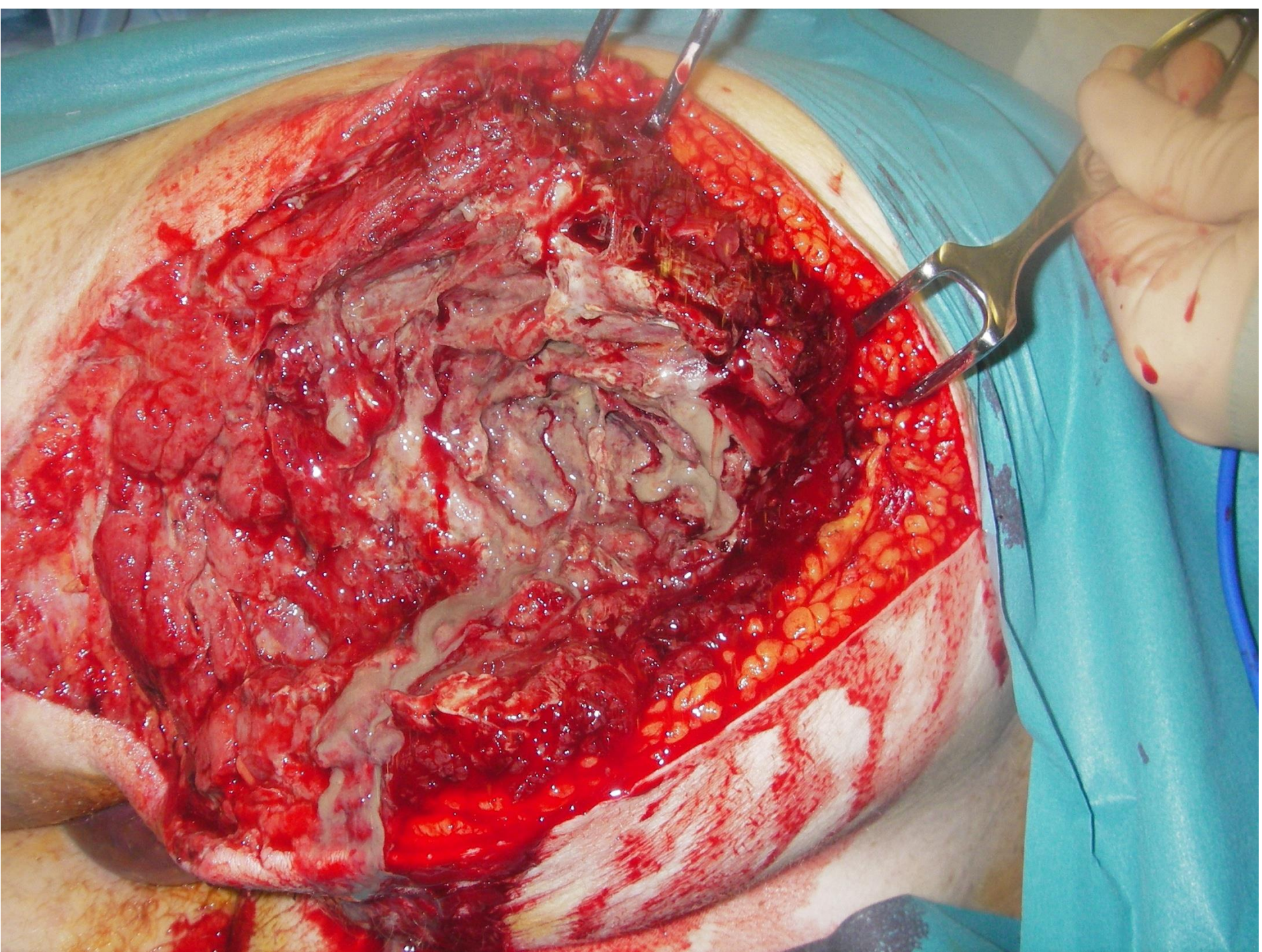


colonisation



infection





- <Photo of baby removed from published version, but note that wounds covering a baby's face will impact its whole life, social and job prospects>

Unmet need

- The ability to sense what is happening within a dressing
 - Moisture
 - bacteria

Challenge: identifying early signs of skin damage

- Treating pressure ulcers costs the NHS in England approx £2 billion pa (Dealey et al, 2012)
- Skin assessment to identify early signs of pressure damage can be challenging
- Early recognition and implementation of prevention strategies would considerably reduce pressure ulcer incidence
- Unmet need: a cheap and simple method to measure skin integrity / resilience





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