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Cost-effectiveness interventions to prevent and control healthcare-associated infections

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Introduction

Hospital acquired infections are of great concern to patients, healthcare professionals and policy-makers. Considerable resources are used in attempting to tackle hospital acquired infections and the cost-effectiveness of strategies remains unclear.

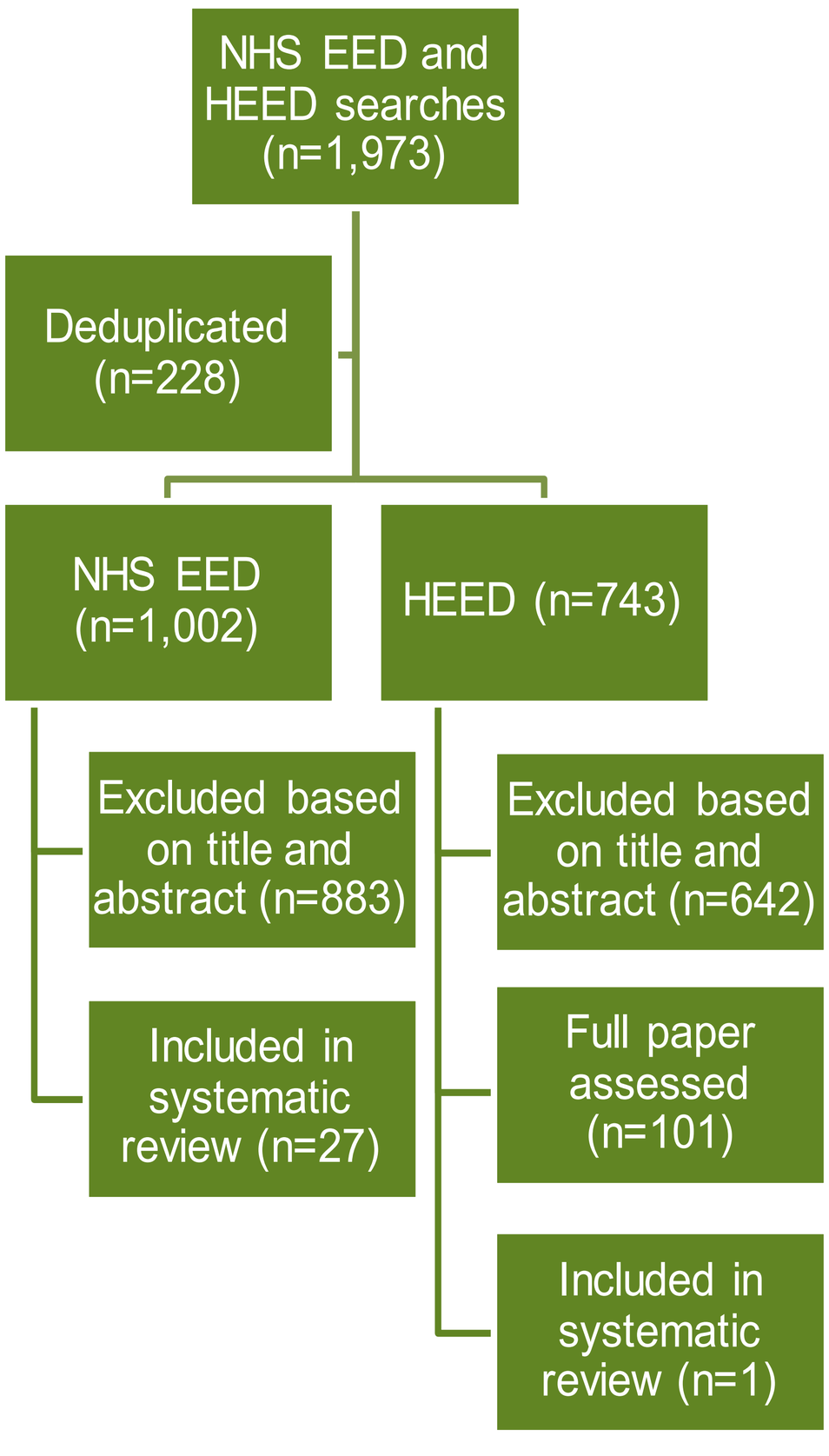
The aim of this study was to identify and summarise the existing economic evaluations evidence base underpinning the interventions concerned with tackling hospital acquired infections.

Methods

A systematic review was undertaken of full economic evaluations. Studies of hand hygiene, screening, isolation and decolonisation and personal protective equipment in the hospital setting were included. Inclusion criteria were not limited by population or outcome.

Searches were undertaken using two specialist economic databases (NHS EED and HEED), from inception up to July 2012.

Flow diagram of study inclusion



Result

The results of the review are presented separately for hand hygiene, personal protective equipment and for screening, isolation and decolonisation.

Of the economic evaluations identified and included:

- four assessed hand hygiene measures
- three investigated the use of personal protective equipment
- two studies evaluated isolation interventions
- thirteen studies evaluated strategies which included screening for MRSA:
  - five accessed screening at hospital admission
  - five accessed screening in high-risk/ICU
  - three evaluated screening in surgical populations
- five studies evaluated strategies which included screening for Staphylococcus aureus, all in pre- or post-operative populations
- one study evaluated a strategy which included screening for vancomycin-resistant Enterococcus

All of the evaluations within and across the different intervention groupings were heterogeneous in terms of settings, interventions and populations. These high levels of heterogeneity precluded any quantitative synthesis. A narrative summary was undertaken.

The majority of evaluations were poor quality. Of the twenty-eight studies included only four of the screening for MRSA evaluations were considered to be of high quality.

Conclusions

- The majority of studies were of poor quality and were too heterogeneous to draw any firm conclusions
- The evidence suggests that some form of screening, followed by some form of intervention is likely to be cost-effective, although which screening strategy or which intervention remains unclear
- There is a clear need to establish the effectiveness of interventions prior to evaluating their cost-effectiveness

Disclaimer

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