

# Dual realist review as a research method to support clinical decisions in hard to study areas: discussion of a successful study concerning the use of compression therapy for symptom control in lower limb swelling in end of life care.

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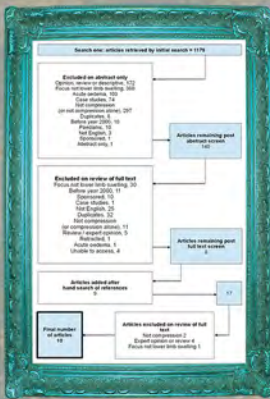
## What is realist review?

- A relatively young approach to review, with roots in philosophy, social science and evaluation (Pawson, 2002, Pawson et al, 2004)
- Recently adopted for the review of complex interventions in healthcare (Pawson et al, 2004, Rycroft-Malone et al, 2012)
- In contrast to traditional meta-analysis, realist review asks - "what works, for whom and in what circumstances?" Realist review examines the context, mechanism and outcome of an intervention. It seeks to determine the best set of circumstances for success. (Pawson, 2002, Pawson et al, 2004, The RAMESES project, 2014, Rycroft-Malone et al, 2012, Wong et al, 2013).



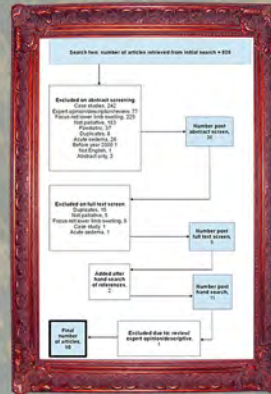
## What is the structure of this review?

- A novel approach – dual realist review++
- This review tackles a hard to study population – dying patients (Hanson et al, 2014).
- This review proposes using two parallel realist reviews, with the aim of using information about one population to inform decisions in another.



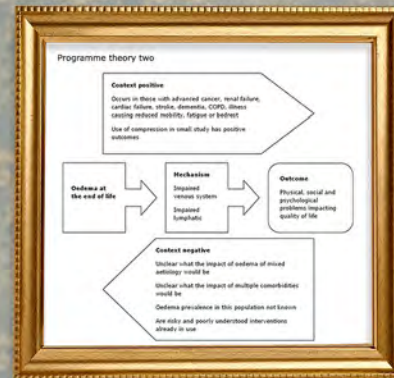
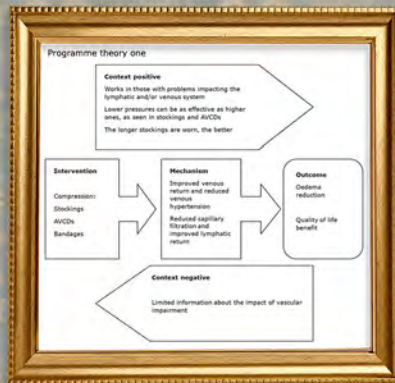
## How did the review work?

- Review one asked - does compression therapy manage the problems caused by lower limb swelling or deliver a quality of life benefit for the general population? If so, how, for whom and in what way?
- Review two asked - what are the problems caused by lower limb swelling in end of life care patients? How, for whom and why do these problems occur? What, if anything is currently being done to manage these problems?
- Programme theories were then constructed for each review.
- Similarities were identified in mechanism and outcome between the two programme theories. This suggests end of life patients would experience similar benefits to general population – a reduction in swelling and a quality of life benefit.
- Context information was used to draw conclusions. This allowed information from one population to be used to inform decisions in another.



## What were the results?

- Compression therapy delivers a reduction in oedema and a quality of life benefit in lower limb swelling in the general population.
- Matching mechanisms and outcomes in the two programme theories suggest that end of life patients are likely to experience the same benefits.
- A cautious approach should be used due to likely multifactorial aetiology, possible co-morbidities and possible vascular impairment. But the risks of compression are comparable to other interventions currently in use in the end of life population.
- Lower pressures delivered by stocking liners or adjustable Velcro compression devices are likely to deliver the best benefit, with the minimum impact on comfort and quality of life.
- Guidelines already in existence for the management of oedema at the end of life should also be considered.



## Strengths and limitations

- Dual realist review was able to deliver useful outcomes to inform treatment decisions in a hard to study area.
- This was a single researcher study so there was an increased risk of bias and a limit to iterative nature of searches.
- Some lower quality evidence was included in review two but this was taken into account in conclusions drawn.
- No prevalence data was found on the problem of oedema in end of life care so it is not known if this symptom is widespread.

## Recommendations for further study

- Prevalence of oedema in end of life care patients
- Trials of compression in end of life patients and its outcomes
- Further trials of dual realist review to determine its usefulness as a research method in hard to study areas



References  
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