Rapid Response Report: Community-Based Hemodialysis: Clinical Effectiveness, Cost-Effectiveness and Guidelines

DATE: 9 September 2015

RESEARCH QUESTIONS

1. What is the clinical effectiveness of community-based hemodialysis units?
2. What is the cost-effectiveness of community-based hemodialysis units?
3. What are the evidence-based guidelines regarding indications for, and the use of, community-based hemodialysis units?
4. What are the evidence-based guidelines regarding provision of self-care in community-based dialysis units?

KEY FINDINGS

One health technology assessment, seven non-randomized studies, and two economic evaluations were identified regarding the clinical and cost-effectiveness of community-based hemodialysis units.

METHODS

A limited literature search was conducted on key resources including Ovid Medline, PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, ECRI, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2010 and September 2, 2015. Internet links were provided, where available.

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SELECTION CRITERIA

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

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<th>Table 1: Selection Criteria</th>
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<td><strong>Population</strong></td>
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<td><strong>Intervention</strong></td>
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| **Comparator** | Q1: Hospital or home-based hemodialysis; no comparator  
Q2: Hospital or home-based hemodialysis;  
Q3 and 4: No comparator |
| **Outcomes** | Q1: Clinical effectiveness (e.g., mortality, blood biomarkers [e.g., serum creatinine, serum albumin], quality of life, patient satisfaction, independence, frequency of transfer to in-hospital dialysis);  
Harms (e.g., hospitalizations)  
Q2: Cost-effectiveness outcomes  
Q3: Guidelines regarding selection of patients or indications for community-based hemodialysis and use of these facilities  
Q4: Guidelines regarding the provision of self-care in community-based dialysis units |
| **Study Designs** | Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, economic evaluations, evidence-based guidelines |

RESULTS

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies, economic evaluations, and evidence-based guidelines.

One health technology assessment, seven non-randomized studies, and two economic evaluations were identified regarding the clinical and cost-effectiveness of community-based hemodialysis units. No relevant systematic reviews, meta-analyses, or randomized controlled trials were identified.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments

   See: 2.3.1 Hospital HD versus satellite HD versus home HD, page 14 and ‘satellite’ mentioned throughout

Systematic Reviews and Meta-analyses

No literature identified.
Randomized Controlled Trials
No literature identified.

Non-Randomized Studies


Economic Evaluations


Guidelines and Recommendations
No literature identified.

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APPENDIX – FURTHER INFORMATION:

Qualitative Studies


Clinical Practice Guidelines – Methodology Not Specified


Review Articles


Additional References


Government Recommendations