TITLE: Magnesium Laboratory Testing for Patients admitted for Heart Failure: Clinical Effectiveness and Guidelines

DATE: 29 February 2012

RESEARCH QUESTIONS

1. What is the clinical effectiveness of magnesium laboratory testing for patients admitted for heart failure?

2. What are the evidence-based guidelines and recommendations for magnesium laboratory testing for patients admitted for heart failure?

KEY MESSAGE

Three evidence-based guidelines and recommendations were identified regarding magnesium laboratory testing for patients with heart failure. No literature was identified pertaining to the clinical effectiveness of magnesium laboratory testing for patients with heart failure.

METHODS

A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2012, Issue 1), University of York Centre for Reviews and Dissemination (CRD) databases, 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. The search was also limited to English language documents published between January 1, 2002 and February 16, 2012. Internet links were provided, where available.

The summary of findings was prepared from the abstracts of the relevant information. Please note that data contained in abstracts may not always be an accurate reflection of the data contained within the full article.
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, and evidence-based guidelines.

Three evidence-based guidelines were identified pertaining to magnesium lab testing for patients admitted for heart failure. No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or non-randomized studies were identified. Additional references of potential interest are provided in the appendix.

OVERALL SUMMARY OF FINDINGS

Two evidence-based guidelines\textsuperscript{1,3} recommend magnesium testing for confirmed cases of heart failure to monitor the patient’s condition and response to treatment\textsuperscript{1} or for initial assessment\textsuperscript{3}. One evidence-based guideline\textsuperscript{2} recommends routine magnesium laboratory testing for the evaluation of patients with established heart failure. This guideline also recommends that serum magnesium levels be monitored at least daily and maintained in the normal range for patients with acute decompensated heart failure who are being treated with diuretics. It is also stated that in the event that diuresis is rapid, it may be necessary to monitor magnesium levels more frequently.
REFERENCES SUMMARIZED

Health Technology Assessments
No literature identified.

Systematic Reviews and Meta-analyses
No literature identified.

Randomized Controlled Trials
No literature identified.

Non-Randomized Studies
No literature identified.

Guidelines and Recommendations

   See: Step 14

   See: Section 4.12 & 12.9


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APPENDIX – FURTHER INFORMATION:

Non-Randomized Studies
