



Effective Health Care Syringomyelia Treatment Nomination Summary Document

Results of Topic Selection Process & Next Steps

- Treatment of post-traumatic syringomyelia was found to be addressed by a 2010 systematic review. Given that the existing review covers this population, no further activity will be undertaken on this topic.
 - Bonfield CM, Levi AD, Arnold PM, et al. Surgical management of post-traumatic syringomyelia. *Spine* 2010; 35(21 Suppl): S245-2258. PMID: 20881468.
- Treatment of communicating or noncommunicating syringomyelia is not feasible for a full systematic review due to the limited data available for a review at this time.
- Treatment of any form of syringomyelia could potentially be considered for new research in comparative effectiveness.

Topic Description

Nominator: Individual

Nomination Summary: The nominator expresses interest in research having to do with any aspect of syringomyelia in adults, including etiology, presentation, treatment, and training for clinicians.

Staff-Generated PICO

Population(s): Adult patients with syringomyelia

Intervention(s): Surgical interventions (transection of spinal cord, surgical decompression, drainage procedures); pharmacological treatments (analgesics, local anesthetics); non-pharmacological pain management (spinal or peripheral electrical stimulation); rehabilitation; physical therapy

Comparator(s): Above interventions alone or in combination

Outcome(s): Reduction in syrinx size, reduction in pain and numbness, improvement in quality of life, improved range of motion and motor symptoms. Harms may include complications resulting from surgery, such as infection, comorbidities resulting from damage to the spinal cord, or failure of the surgical intervention requiring reoperation.

Key Questions from Nominator: None

Considerations

- The topic meets Effective Health Care (EHC) Program appropriateness and importance criteria. (For more information, see <http://effectivehealthcare.ahrq.gov/index.cfm/submit-a-suggestion-for-research/how-are-research-topics-chosen/>.)

- This topic has three main areas:
 1. Treatment of post-traumatic syringomyelia
 2. Treatment of communicating syringomyelia
 3. Treatment of noncommunicating syringomyelia.

- The topic of treatment of post-traumatic syringomyelia was found to be addressed by a 2010 systematic review titled *Surgical management of post-traumatic syringomyelia*. This review considered indications for surgery among patients with post-traumatic syringomyelia, as well as optimal surgical treatment technique in these patients.

- Very few studies have been conducted on the comparative effectiveness of treatments for communicating or noncommunicating syringomyelia. Therefore, this topic is not feasible for a full systematic review due to the limited data available for a review at this time.

Importance of New Research

- An existing review on the treatment of post-traumatic syringomyelia found insufficient high-quality evidence and called for more research on this topic. Additionally, treatment of communicating or noncommunicating syringomyelia is an important topic with a lack of primary evidence and practice variation.

Research Gaps

- Treatment of post-traumatic syringomyelia was assessed in a 2010 systematic review of surgical treatments in this population. This review identified no high-quality evidence relevant to the treatment of post-traumatic syringomyelia and the authors suggest that more high-quality primary research on treatment of post-traumatic syringomyelia is needed. Searches of the medical (Medline) literature found only two small studies of surgical treatment of individuals with post-traumatic syringomyelia published since the search the last search date of this 2010 review.

- Treatment of communicating or noncommunicating syringomyelia is not addressed by any systematic literature review or clinical practice guidelines. A search of the medical (Medline) literature resulted in several small studies examining varied interventions in diverse populations, making synthesis of the available research on this topic difficult.

- Controlled trials of treatments for syringomyelia are needed, especially regarding non-surgical interventions for any form of syringomyelia, as there are currently no existing reviews or studies examining such treatments.