Case
You are an occupational therapist at a private clinic treating a seven-year-old boy with spastic cerebral palsy with decreased motor control. His mother recently discovered a program that offers hippotherapy, a treatment strategy that uses horses as a tool to promote postural control and motor skills, and is interested in what research support is available for the treatment option.

Does hippotherapy improve motor control in children with cerebral palsy?

This CAT reviews current information on the effectiveness of hippotherapy on improving motor control in children with cerebral palsy.

1 Ask: Research Question
In children with cerebral palsy (CP), what is the effect of hippotherapy on motor control compared with no treatment?

2a Acquire: Search Terms
Patient/Client group: Children with Cerebral Palsy
Intervention: Hippotherapy
Comparison: No treatment
Outcome(s): Motor control

2b Acquire: Selected Articles
Davis et al. (2009): Randomized control trial (RCT) to examine the impact of therapeutic horse riding in 99 children with CP, ages 4 to 12.

3b Appraise: Study Results
The articles revealed mixed results about the effects of hippotherapy on children with CP. Although three of the articles showed positive effects, such as improved symmetry of muscle activity, the Davis et al., (2009) study did not. Hippotherapy could be an effective treatment method, as the majority of the articles suggested it, however, further research with larger sample sizes is clearly needed to make a more definite conclusion.

3a Appraise: Study Quality
Benda et al. (2003): Suggestive: Small sample size, participants not blind, researchers initially blind but not while gathering results, no follow-up on lasting effects. One geographic location.
Davis et al. (2009): Inconclusive: Both groups similar at baseline, large sample sizes, large drop out rate, confounding factors and inconsistencies in attendance.
Drnach et al. (2010): Suggestive: Studied one participant and had no control group. The study session occurred during a session with 4-5 other children, researcher not blind.
McGibbon et al. (2009): Suggestive: Small sample size, participants and researchers not blind to group allocations, no follow up on Phase 1 participants.

4 Apply: Conclusions for Practice
For the seven-year-old boy with CP, some of the studies suggest that hippotherapy has helped similar populations is a good treatment option to explore. There are no known adverse effects of hippotherapy other than the innate safety risk that comes with riding a horse, a risk most programs take extra safety precautions to minimize. Therefore, when hippotherapy is affordable and available, it is a good option to enroll a child and determine if it is effective for their individual goals.

References:

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? Unclear: Further research is needed to determine if hippotherapy is effective for improving motor control in children with cerebral palsy.