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Medical Policy Manual

Topic: Hippotherapy

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Section: Allied Health

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IMPORTANT REMINDER

Medical Policies are developed to provide guidance for members and providers regarding coverage in accordance with contract terms. Benefit determinations are based in all cases on the applicable contract language. To the extent there may be any conflict between the Medical Policy and contract language, the contract language takes precedence.

PLEASE NOTE: Contracts exclude from coverage, among other things, services or procedures that are considered investigational or cosmetic. Providers may bill members for services or procedures that are considered investigational or cosmetic. Providers are encouraged to inform members before rendering such services that the members are likely to be financially responsible for the cost of these services.

DESCRIPTION

Hippotherapy, also referred to as equine movement therapy, describes physical therapy using a horse and consists of riding horseback in various positions. Hippotherapy has been proposed as a type of physical therapy for patients with lower extremity spasticity secondary to neuromuscular disorders (e.g., cerebral palsy, spinal cord injury). The movement of the horse is believed to be effective in muscle and neurological reeducation, resulting in a decrease in spasticity and balance problems.

Horseback riding is also being investigated as a social therapy for children with profound social and communication deficits, including autism spectrum disorder and other developmental disorders such as Down syndrome.

Simulated hippotherapy using a new device has been studied in European centers. Therapeutic interventions using such a device would be conducted in the physical/occupational therapy setting and are outside the scope of this policy.

MEDICAL POLICY CRITERIA

Hippotherapy is considered **investigational** for all indications.

SCIENTIFIC EVIDENCE

In order to determine whether hippotherapy results in sustained improvements in clinically meaningful health outcomes, comparisons in randomized trials are needed using standardized functional measurement tools. Appropriate non-riding therapeutic comparisons to hippotherapy could include conventional physical/occupational therapy programs or simulated riding experiences.

The focus of the following literature appraisal is on systematic reviews and randomized controlled trials.

Literature Appraisal

Systematic Reviews

Several systematic reviews on hippotherapy or therapeutic horseback riding (TR) have been published. The majority of these were for children with cerebral palsy (CP).[1-6] The two most recent reviews, which included all prior published systematic reviews for this therapy in CP children, are summarized below. All of these reviews reported inconsistency in study findings with some studies reporting evidence of possible therapeutic effect in gross motor function in these children while others found no significant effect. Current studies were reported to have significant methodologic limitations that preclude conclusions, including but not limited to lack of a non-riding control group, lack of randomized treatment allocation, small sample size, heterogeneity of subjects and treatment protocols, and lack of blinded assessment in those studies that included a control group. All of the systematic reviews concluded that additional data is needed from rigorous, well-designed, controlled trials.

- Whalen and Case-Smith conducted a systematic review with a focus on examining the efficacy of hippotherapy and therapeutic horseback riding (THR) in children with CP, with a focus on motor outcomes.[5] While the review identified a subset of children that might be most likely to benefit from this therapy, the authors noted that more rigorous research was needed to validate their conclusions. They further acknowledged limitations in the existing literature, namely, lack of consistency in intervention protocols, small sample sizes, lack of comparison groups and randomization. The authors stated, “It is not clear who benefits from hippotherapy and THR or how outcomes may vary for children with different types or severity levels of CP.”
- Tseng and colleagues also conducted a systematic review and meta-analysis of randomized trials[7-9] and observational studies of hippotherapy and THR for children with spastic CP.[6] The authors “found no statistically significant evidence of either therapeutic effect or maintenance effects on the gross motor activity status in CP children.”

One additional systematic review was identified which focused on hippotherapy for patients with multiple sclerosis (MS).[10] Three small nonrandomized trials were included in the review. One was a case control study[11] with 9 subjects, and the other studies, both case series,[12,13] had 11 subjects each. The authors concluded that the studies provided emerging, but limited, evidence that hippotherapy improves balance in persons with MS, acknowledging limitations of small sample size, lack of randomization, especially given the variable nature of MS, and lack of controls in two studies.

Randomized Controlled Trials (RCTs)

One small RCT has been published since the systematic reviews summarized above.[14] Post-stroke patients with hemiparesis were randomly assigned to receive conventional physiotherapy with (n=12) or

without (n=12) horseback riding therapy (HBRT). Health outcomes were evaluated at baseline and after 16 weeks of therapy using the 36-item Short-Form (SF-36) health survey. HBRT was associated with significant improvements in functional capacity (p=0.02), physical aspects (p=0.001), and mental health (p=0.04). This improvement was significantly better than the conventional therapy group. The authors concluded that HBRT in additional to conventional physical therapy may have positive results, and recommended further studies. This was a preliminary study that did not permit conclusions due to methodologic limitations, including but not limited to the small sample size.

Nonrandomized Studies

Several small nonrandomized studies of various conditions reporting differing results have been published.[9,11,14-26] It is not possible to determine the impact of hippotherapy on functional improvement because of small sample sizes, the diversity of subjects with respect to baseline characteristics, co-interventions, and the lack of comparator groups.

Summary

The published literature on hippotherapy is limited, consisting primarily of small uncontrolled case series which reported mixed results. In the largest randomized trial conducted to date (72 children), hippotherapy was found to have no clinically significant impact on children with cerebral palsy. The literature at this time does not support the conclusion that hippotherapy is as effective as the existing alternatives and does not demonstrate improvement in net health outcomes; therefore, the treatment is considered investigational.

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CROSS REFERENCES

None

CODES	NUMBER	DESCRIPTION
CPT	None	
HCPCS	S8940	Equestrian/Hippotherapy; per session