

## Implementation of an Evidence-Based Therapeutic Exercise Program in the Acute Care Setting

Claire Hart, PT, DPT      Katherine Kenney, PT, DPT

3:45 - 5:15pm

Other, Geriatrics

The inpatient rehabilitation department at BIDMC recognized a need for updating therapeutic exercise programs in order to utilize evidence-based research to prescribe exercises with proper parameters in the acute care setting. Therefore, a work group was designated to create a model for updating former and creating new therapeutic exercise packets. This work group, now a committee, performed an extensive literature review to facilitate BIDMC clinicians prescribing exercise at proper intensity in order to achieve therapeutic effects in our patient populations. This presentation will review the current literature and research behind appropriate parameters for exercise prescription in the acute care setting and provide an example of how our model was utilized to create new therapeutic exercise packets.

### Objectives:

1. Identify the need to improve how therapeutic exercise interventions are prescribed in the acute care setting at BIDMC, and the process through which this need was met with the creation of the Therapeutic Exercise Work Group.
2. Review the importance of providing proper intensity for therapeutic exercise to attain patient and clinician goals.
3. Provide overview of research related to appropriate parameters for exercise prescription in the acute care setting.
4. Illustrate the process of creating an evidence-based exercise program.

1. Claudio Di Lorito et al., Exercise interventions for older adults: A systematic review of meta-analyses, *Journal of Sport and Health Science* (2020), <https://doi.org/10.1016/j.jshs.2020.06.003>

2. Martinez-Velilla N, Casas-Herrero A, Zambom-Ferraresi F, et al. Effect of Exercise Intervention on Functional Decline in Very Elderly Patients During Acute Hospitalization: A Randomized Clinical Trial [published correction appears in *JAMA Intern Med.* 2019 Jan 1;179(1):127]. *JAMA Intern Med.* 2019;179(1):28-36. doi:10.1001/jamainternmed.2018.4869

3. Shinichiro Morishita, Atsuhiko Tsubaki, Masatoshi Nakamura, Satoshi Nashimoto, Jack B. Fu & Hideaki Onishi (2018): Rating of perceived exertion on resistance training in elderly subjects, *Expert Review of Cardiovascular Therapy*, DOI: 10.1080/14779072.2019.1561278

4. Schulz JM, Birmingham TB, Atkinson HF, et al. Are we missing the target? Are we aiming too low? What are the aerobic exercise prescriptions and their effects on markers of cardiovascular health and systemic inflammation in patients with knee osteoarthritis? A systematic review and meta-analysis. *Br J Sports Med.* 2020;54:771–775.

5. Borde R, Hortobágyi T, Granacher U. Dose-Response Relationships of Resistance Training in Healthy Old Adults: A Systematic Review and Meta-Analysis. *Sports Med.* 2015 Dec;45(12):1693-720. doi: 10.1007/s40279-015-0385-9.

6. Eckard T, Lopez J, Kaus A, Aden J. Home exercise program compliance of service members in the deployed environment: an observational cohort study. *Mil Med.* 2015;180(2):186-191. Doi: 10.7205/MILMED-D-14-00306"

Claire Hart, PT, DPT is an inpatient staff physical therapist at Beth Israel Deaconess Medical Center in Boston, with clinical interests in orthopedics and trauma. She is the co-leader of the therapeutic exercise committee for the inpatient rehabilitation department at BIDMC. Claire also has previous experience working per-diem and part time in outpatient orthopedics. Additionally, she serves as an adjunct faculty at Simmons University.

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