



Ambulating Patients with Pulmonary Artery Catheters Who Are Awaiting Heart Transplant

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BACKGROUND

- Traditional care for patients with PA catheters is bedrest →
 - Social isolation & depression
 - Physical deconditioning
 - Higher risk for post-transplant complications
- **But** – can hemodynamically stable patients be ambulated safely with PA catheters?
- Important to help stable patients awaiting transplant maintain optimal physical & emotional condition, while ensuring safety

PURPOSE & SPECIFIC AIMS

- **Purpose:** To describe the physiologic & emotional responses to ambulation in patients with a PA catheter awaiting heart transplant
- **Specific aims to determine:**
 1. Changes in PA catheter position while ambulating
 2. If ambulation is associated with patients' feeling of exertion & fatigue
 3. Patients' perception of how ambulation affects their sense of well-being

- ### Acknowledgements
- Cardiac ICU nurses, physical & occupational therapists
 - Francine LoRusso, Executive Director, Heart & Vascular Center



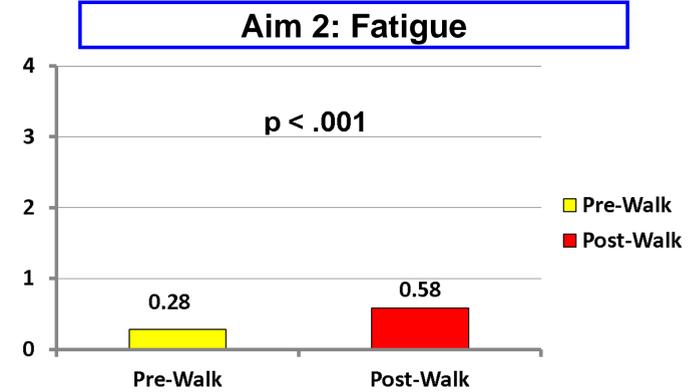
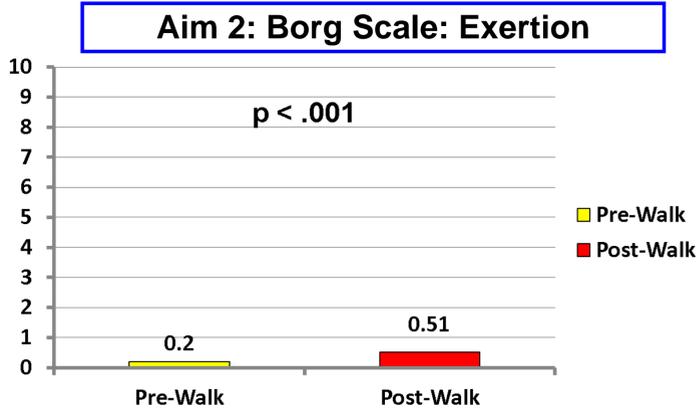
METHODS

- **Design:** Prospective descriptive
- **Sample:** 8 patients with PA catheter awaiting heart transplant
- **Setting:** Cardiac ICU, Heart & Vascular Center, Yale-New Haven Hospital
- **Procedure**
 - Obtain written informed consent
 - Patient walks around unit on monitor with RN
 - Collect data before, during, & after each walk
 - Vital signs
 - Evidence of change in PA catheter position
 - Patient's perceived level of exertion (Borg Scale 0-10, 0 = nothing at all, 10 = very, very strong / hard)
 - Level of fatigue (0-4 scale, 0 = not at all, 4 = extremely)
 - Weekly assessment of patient's perception of how walking affects sense of well-being
 - 7 aspects of well-being (1-5 scale, maximum sense of well-being = 35)
 - Open-ended question: how walking makes you feel emotionally & physically

RESULTS

- ### Sample Description (N = 8 Patients & 147 Walks)
- **Age:** Mean = 53.9 12.3 years; Range = 34 – 65
 - **Gender:** 87.5% Male
 - **# of Walks:** Mean = 29.4 20.4; Range = 1 - 68

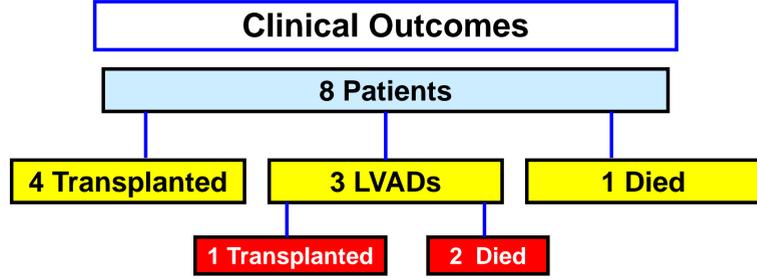
- ### Aim 1: Change in PA Catheter Position
- 1 of 147 patient walks (0.7%) had change in catheter position (2 cm)
 - No catheter-induced arrhythmias
 - No changes in PA catheter waveform



Aim 3: Sense of Well-Being

Patient #	Week 1	Week 2	Week 3
2	35	35	32
3	32	33	32
7	27		

- Expressed appreciation for ability to increase activity & walking
- Expressed feelings of improved physical well-being



CONCLUSIONS

- Although exertion & fatigue scores were statistically significantly worse after walking, patients experienced little exertion or fatigue & the decline was not clinically important
- In stable patients awaiting heart transplant, ambulating with PA catheter is safe & results in enhanced sense of well-being; interdisciplinary protocol detailing patient criteria & safety measures is essential
- Patients should be better prepared to undergo transplant surgery