Retrospective Review of Pulmonary Hypertension Medication Transitions Within a Large Health Care System

Ming Yang, PharmD¹, Frank Spexarth, RPh¹, Eric Roberts, MD¹, Dianne Zwicke, MD¹
¹Aurora Health Care, Milwaukee, WI
Max.Yang@aah.org

PROBLEM
The inherent need for medication transitions for patients with pulmonary arterial hypertension (PAH) and paucity of available primary literature drives the impetus for development and evaluation of proprietary transition protocols.

BACKGROUND
A wide variety medications are available for the treatment of PAH. Due to nuances between medications even within a certain medication class, there is the need for medication transitions when managing these patients.

Medication transitions are done to:
- Minimize adverse drug reactions
- Optimize disease management
- Change route of administration
- Improve quality of life by facilitating ease of therapy

Transitional care is integral to successful management of PAH. Transitioning between medications comes with risks such as prostacyclin excess, insufficiency, and patient decompensation.

OBJECTIVE
To assess the efficacy and safety of current PAH medication transition practices and protocols at our institution.

METHODS
- Retrospective, observational, single-center study of PAH patients at St. Luke’s Medical Center in Milwaukee, WI
- Included adult PAH patients transitioned between PAH medications from January 2016 through December 2019
- Patients identified via pulmonary hypertension clinic records
- All patients transitioned based on institutional protocol references.
- Protocols included transitioned at least six patients
- Data collected included baseline demographics, baseline and post-transition hemodynamics, acute transition safety and efficacy, and six-month safety.

- Composite primary efficacy outcome: transition success, defined as transition to new medication without worsening of disease, new intolerable side effects at first follow-up, increased escalation of care or death within 1 month.
- Primary safety outcome was escalation of care
- Four complications occurred including:
  - 2 requiring escalation of care
  - 1 intolerable side effect requiring discontinuation
  - 1 death during the transition admission unrelated to prostacyclin excess, insufficiency, and patient decompensation.

RESULTS
73 patients comprised the final cohort
7 unique transition protocols evaluated
69 successful transitions (94.5%) and 4 complications
67 patients (91.8%) acutely achieved planned target dose

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  - 1 intolerable side effect requiring discontinuation
  - 1 death during the transition admission unrelated to prostacyclin excess, insufficiency, and patient decompensation.

- 21 patients (28.8%) experienced prostacyclin excess
- 7 patients (9.6%) experienced prostacyclin insufficiency

REFERENCES