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 of 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

Transferring 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.

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
- Four complications occurred including:
  - 2 requiring escalation of care
  - 1 intolerable side effect requiring discontinuation
  - 1 death during the transition admission unrelated to medication transition
- 21 patients (28.8%) experienced prostacyclin excess
- 7 patients (9.6%) experienced prostacyclin insufficiency

CONCLUSIONS
Transitions of PAH medications appears safe and efficacious when following our institutional guideline protocols.

Patients may require acute adjustments to transition protocol based on side effects, prostacyclin insufficiency, and patient reason for transition (20.5%).

REFERENCES