Beth Israel Deaconess Medical Center | HARVARD MEDICAL SCHOOL TEACHING HOSPITAL | THE SILVERMAN INSTITUTE For Health Care Quality and Safety

Implementing Best Practices for Inter-hospital Transfers to a Cardiology Service to Improve Quality and Safety

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Introduction/Problem

Inter-hospital transfers (IHTs) are an important yet risky transition of care. IHTs allow patients hospitalized in the community to receive specialized services, while helping tertiary and quaternary medical centers build a referral base. These transitions in care, however, are associated with worse outcomes for patients, even after controlling for confounders, including severity of illness. Internal data suggests transfers from BID-network hospitals to BIDMC are no exception to this national phenomenon.

Aims/Goals

The objective of this project is to define best practices and improve the transfer process from BID-network hospitals to the Cardiology service at BIDMC.

Aim 1: Define best practices for IHT

Aim 2: Identify opportunities for improvement within the current transfer process to BIDMC's Cardiology service

Aim 3: Implement best practices for transfers to the Cardiology service with a focus on quality and patient safety

Aim 4: Track process measures and patient outcomes to identify risky states and adverse events attributable to the transfer process

The Team

- Alyse Reichheld, BA, Center for Health Care Delivery Science
- Taj Qureshi, MPH, Health Care Quality
- Noah Tocci, BA, Center for Health Care Delivery Science
- Jesse Yang, MD, Department of Cardiology
- Gene Quinn, MD, Alaska Heart and Vascular Institute
- Lauge Sokol-Hessner, MD, Health Care Quality, Hospital Medicine

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The Interventions

- **Aim 1: Define best practices for IHT**
  - Reviewed relevant literature
  - Conducted interviews with experts in IHT
- **Aim 2: Identify opportunities for improvement within the current transfer process to BIDMC's Cardiology service**
  - Conducted interviews with local interdisciplinary stakeholders
  - Created local process maps
  - Surveyed a broad range of frontline staff
  - Conducted a modified failure modes and effect analysis
- **Aim 3: Implement best practices for transfers to the Cardiology service**
  - Standardized process for off-hour transfers
  - Promoted situational awareness through a group email address
  - Instituted a transfer template to standardize patient information collection
- **Aim 4: Track process measures and patient outcomes**
  - Designed a learning system to track process and outcome measures
  - Surveyed referring and admitting professionals to assess provider experience
  - Interviewed transfer patients to assess patient experience

Results/Progress to Date

High-quality, safe IHTs involve several key elements:

1. A standardized process for managing IHT requests to create situational awareness and a shared mental model among stakeholders
2. Each hospital service designates a healthcare professional who is expected to be available 24/7 and responsible for triaging, communicating about, and accepting or declining IHT requests
3. A standard set of clinical information is collected and documented about each IHT request and shared with all involved stakeholders, including admitting teams, to ensure they have the information they need to provide high-quality care
4. The ability to explore adverse events within the transfer process to identify areas of risk and help drive iterative improvement

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More Results/Progress to Date

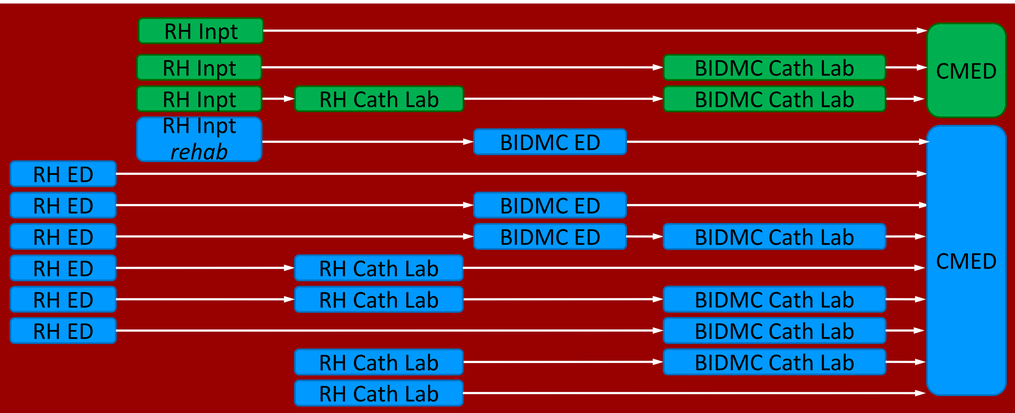


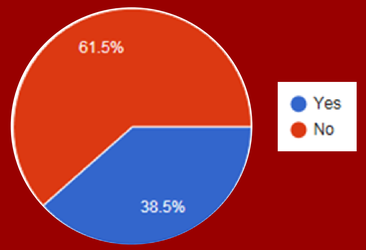
Figure 1. Paths to CMED. Patients transferred from a referring hospital (RH) to CMED can arrive through a variety of paths. Our intervention focused on the paths in green.

Elements of Quality	Findings to Date
Safe	To date, only 1 harm event has been identified as related to a problem with the transfer process (n=156 transfers). Insulin given at OSH hospital, patient made NPO, transfer delayed a few hours → hypoglycemia and altered mental on arrival to BIDMC → increased monitoring, additional treatment, cancelled cath.
Effective	Vast majority of transfer requests are fulfilled. Of 192 requests, 1 was declined by an attending and 1 was transferred to another institution because of BIDMC bed availability.
Efficient	To date, only 2 unnecessary transfers have been identified (n=156 transfers). Nearly all referring hospitalists who responded to a survey described the experience as efficient and positive.
Timely	A significant minority of patients experience significant delays. However, most patients coming to ICUs appear to arrive in a timely fashion, and no harm events have been identified as a result of delays.
Equitable	Demographic information on patient race and language are not consistently documented. Men are more likely to be transferred than women, which may be a reflection of the patient population. Analyses of insurance data are ongoing.
Patient-centered	Patients are generally satisfied with their transfer experience.

Figure 2. Quality of IHTs to CMED following intervention.

Pre-Intervention:

Is your role in the transfer process clear?



Question	Yes	No
Is there adequate communication between transferring and accepting providers?	31%	69%
Is there adequate documentation and clinical information provided regarding transfers?	31%	69%
Are patients reliably triaged to the appropriate level of care?	54%	46%
As the on-call fellow, should you hear about all transfers?	54%	46%

Figure 3. Fellow perception of the transfer process pre-intervention. Post-intervention survey results are pending.

Lessons Learned

- Not all IHTs are the same, meaning the professionals involved in managing the transfer process vary depending on the path
- Standardizing the transfer process and ensuring 24/7 coverage of the “accepting professional” role are critical elements for reliability
- Overall, transfers to CMED are high-quality and safe

Next Steps

- Explore outcomes for patients arriving to CMED through other paths
- Stratify process measures, such as delays in transfer, by time of day and patient diagnoses
- Interview additional transfer patients to fully understand the patience experience
- Share learnings with BIDMC and BID-community stakeholders
- Incorporate the transfer template into the electronic medical record through CommunityOne

For more information, contact:
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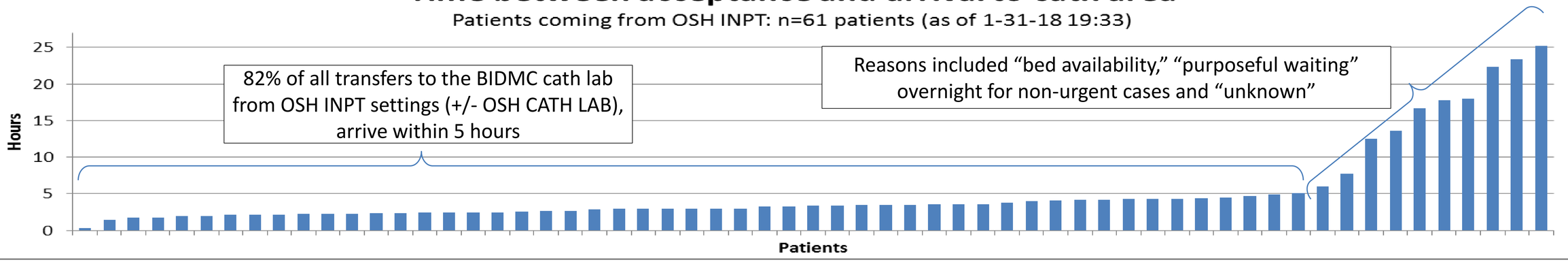
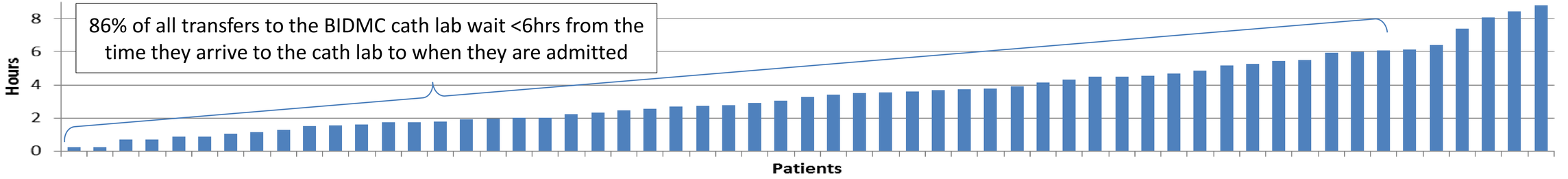
Time between acceptance and arrival to cath area

Patients coming from OSH INPT: n=61 patients (as of 1-31-18 19:33)



Time between arrival to cath area and admission

Patients coming from OSH INPT to CMED: n=57 patients (as of 1-31-18 19:33)



Time between acceptance and admission

Patients coming from OSH INPT to CMED: n=157 patients (as of 1-31-18 19:33)