Clinical Safety & Effectiveness
Cohort # 22
Team 5

Improving Receipt of Outside Medical Records

UT Health San Antonio
Center for Patient Safety & Health Policy

University Health System

Educating for Quality Improvement & Patient Safety
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Department of Medicine, Division of General and Hospital Medicine and Luci Leykum, MD, MBA, MSc, FACP, SFHM for nominating this project.
AIM

To improve the rate of important medical documents received & scanned into the UHS EMR among patients transferred from outside hospitals by 20% by May 1, 2018
UHS is a major academic tertiary care institution in South Texas and frequently receives patients from outside hospitals.

Information about care provided at the outside hospitals such as procedures & diagnostic tests is often incomplete on admission to UHS.

Complete documentation can potentially improve length of stay, patient satisfaction and reduce costs.
Background

- Inter-hospital transfer is an independent predictor of Length of Stay by 2 to 4 days\textsuperscript{1}
- Transferred patients have a higher mortality than non-transfer patients by 4\% to 8\%\textsuperscript{2,3}
- Inter-hospital transfer has been associated with an average of $9600 in hospital costs\textsuperscript{2-4}
- Discharge summaries are frequently absent or incomplete and often lack critical information\textsuperscript{5}
Process of Inpatient acceptance to UHS from an outside hospital Inpatient service

- **Staff member from transferring facility calls Patient Placement Center**
- **Patient Placement Center requests the documents and relays the request to the Hospital Supervisor**
- **Hospital Supervisor reviews the request**
- **Patient Placement notifies appropriate service and arranges peer to peer**
- **Providers may review records prior to accepting transfer**
- **Patient Placement Center notifies transferring facility that patient has been accepted and will call them back with bed assignment**
- **Patient Placement notifies sending facility of bed assignment and requests an ETA**

Once provider accepts transfer a bed request is completed in teletracking
Case selection

Using the EMR, patients were evaluated by the following:

✓ **Inclusion criteria:**
  
  • Transfer occurred [July 1, 2017 – November 30, 2017] **PRE-INTERVENTION**
    – Must be transferred to one of the following departments:
      » Internal Medicine house-staff service
      » Internal medicine non-house staff service
      » Family Medicine
      » Transplant Medicine
  
  • Transfer occurred [March 1, 2018 – May 1, 2018] **POST-INTERVENTION**
    » Includes all departments, not just medicine

✓ **Exclusion criteria:**
  
  – Admission from an outpatient clinic
  – Transfer from Any Emergency Department
Pre-Intervention

Inbound Transfer Questionnaire

• Transfer facilities were asked to provide the following documents prior to patient being accepted for admission to UHS:

  1. History & Physical
  2. Progress Notes from the last 24 hours
  3. Labs
  4. X-rays/CT reports
  5. MAR
Pre-Intervention: Frequency of documentation received.

Pareto Chart

- Labs: 71, 25.7%
- H&P: 67
- Imaging: 50
- MAR: 50
- Progress note: 37
- DC Summary 1.6
Barriers to documentation in EMR

PEOPLE

- Documents received not scanned into UHS
- Unit clerks unaware of this expectation that these documents be scanned into the UHS EMR
- All unit secretaries do not have access to EMR
- The documents are not included as a part of the discharge packet
- DC Summary not available at the time of transfer
- Outside hospital related barriers

EQUIPMENT/SUPPLIES

- Scanning related barriers
- Scanner not available at every unit
- All clerks not trained to scan the documents

PROCEDURES

- At present, per current checklist, PPC does not ask for discharge summary
- PPC’s current checklist lacks some of the documentation we desire

POLICIES

- UHS Patient Placement Barriers

PROBLEM

- Inpatient transfers to UHS lack documentation scanned into EMR
Utilize **OnBase (UHS clinical application)** to confirm transfer documents have been scanned into the EMR.

**Patient Placement Center** will note that staff at transferring hospitals routinely provide the newly required information.

**UHS Unit Clerks** will report seamless operation of scanning transfer patient information into OnBase per new Medical Records Department policies.
# Driver Diagram

<table>
<thead>
<tr>
<th>Aim</th>
<th>Primary Drivers</th>
<th>Secondary Drivers</th>
<th>Tertiary Drivers</th>
<th>Actions/Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve documentation available in the EMR</td>
<td>Have documents available from outside facility at the point of transfer</td>
<td>Facilities that send the documents frequently but miss sometimes</td>
<td>DC summary &amp; other documents are not available at the time of patient being discharged from outside facility</td>
<td>Facilities to work with the discharging physicians at the outside facility to make sure they are available at the time of dc</td>
</tr>
<tr>
<td>Have Patient Placement Center request specific documents</td>
<td>Figure out the facilities that are most likely to not send these documents</td>
<td>If the patient has these documents available they are not included in the DC packet received by UHS</td>
<td>Have social worker/Care manager include these documents including DC summary in the discharge packet at the time to DC</td>
<td></td>
</tr>
<tr>
<td>Documents received from the outside facility not scanned into the EMR</td>
<td></td>
<td></td>
<td>Patient Placement Center has an updated checklist of requested documents</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Train Patient Placement Center to ask for the documents most important being DC summary at the initial POC.</td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td>Make document scanner available at every floor</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Train Unit clerk to scan it into the EMR</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Give unit clerk access to EMR</td>
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<tr>
<td></td>
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<td></td>
<td>All unit clerks not trained to scan these documents into the EMR</td>
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<tr>
<td></td>
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<td></td>
<td>All unit clerks not aware that it’s an expectation that these documents be scanned into the UHS EMR</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>All unit secretaries do not have access to EMR</td>
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</tbody>
</table>
3-Tiered Intervention:

- **External Communication:**
  Work with outside hospitals to have the documents available at the point of transfer.

- **Staff Education:**
  Provide Patient Placement Center with a new checklist of what documents to request from a sending facility. The checklist will include a discharge summary in addition to current documents being requested.

- **Internal Quality Control Check:**
  Conduct chart audits to ensure outside medical records are being scanned into the EMR.
INTERVENTIONS
DO

01
Improve the documents scanned into the EMR
• Added document scanners to every unit
• Trained the unit secretaries to scan and upload documents into EMR
• Provided unit secretaries access to EMR

02
Educated transfer facilities on the necessity for all patient documentation available at the point of admission to UHS

03
Patient Placement Center to request the required documentation based on post-intervention standardized questionnaire
Post Intervention
Inbound Transfer Question

• Transfer facilities are asked to provide the following documents prior to patient being accepted for admission to UHS:

1. H & P
2. Labs
3. Progress Notes
4. MARS
5. Discharge Summary
6. X-Ray/CT/MRI
7. Isolation precautions
8. EKG
9. Consults
10. Procedures
Check

Although overall trend throughout the process shows improvement, there was a dip in week 7.

Special Cause Variation:
Only 3 transfer patients were received during week 7; and 2 of the 3 lacked the primary documentation.
**COMPARATIVE ANALYSIS**

<table>
<thead>
<tr>
<th>Type of Documentation</th>
<th>Pre-intervention data (%) n = 62</th>
<th>Post-intervention data (%) n = 69</th>
</tr>
</thead>
<tbody>
<tr>
<td>H&amp;P</td>
<td>67</td>
<td>81</td>
</tr>
<tr>
<td>Labs</td>
<td>71</td>
<td>81</td>
</tr>
<tr>
<td>Imaging (e.g., Xray/CT/MRI)</td>
<td>50</td>
<td>74</td>
</tr>
<tr>
<td>Progress Notes</td>
<td>37</td>
<td>72</td>
</tr>
<tr>
<td>MAR</td>
<td>50</td>
<td>74</td>
</tr>
<tr>
<td>Discharge Summary</td>
<td>1.6</td>
<td>23</td>
</tr>
<tr>
<td>Patients with ALL of the above</td>
<td>0</td>
<td>22</td>
</tr>
<tr>
<td>documentation (Complete chart)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Savings from Direct cost of care/Patient = $11,572.42 (Pre-intervention Cost/Patient) – $11,028.42 (Post-intervention Cost/Patient) = $544/patient

Expected number of Inpatient transfers / YR = 414

Change in Operations Cost = $544 x 414 = $225,216/YR

ROI = $225,216 (Change in Operations Cost) - $6384 (Cost of Project -> Scanners leased @ $28/month x 19 x 12)/ $6384
Return on Investment

ROI = \$218832/\$6384 = 34

Savings from the elimination of repetitive testing:
- CT chest -> \$857
- CT Abdomen -> \$1320
- MRI Brain -> \$2047

Savings from decreased length of stay = 7.37 - 4.88 = 2.49

Better utilization of physician time
Limitations of our study

- Early 2018 was particularly busy for UHS
- Very few transfers from outside hospitals occurred during January & February 2018
- Pre-Intervention data includes only patients transferred to UHS medicine service
- Post-Intervention data includes patients transferred to any service at UHS
ACT

Implementing the change

Based on improved documentation directly due to this project, this QI process will be standardized across all clinical units of UHS.

Patient Placement Center provided education to UHS business development team on the challenges to clinical care and cost implications due to missing patient documentation at transfer.

Patient Placement Center will continue to work with the outside hospitals (transferring facilities) to achieve and sustain this improvement.
Lessons Learned

Though the project was initially targeted to patients transferred to medicine services, the standardization of this process to all service lines will increase efficiency on patients transferred to any department.

We collected data on several document types however, during analyses used only those documents (e.g., discharge summary, MARS, Labs, Progress Notes and H&P) relevant to all transfer patients.

Difficult to quantify physician time hence this was not included in ROI analyses.
Acknowledgment

• Jan E. Patterson, MD, MS, CHCP
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References


Thank you!