Transition of Care Practices

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Henry Ford Hospital Detroit Transition of Care (TOC) Services

- Introduction to Pharmacy Services
- Pharmacy Transition of Care Consults
- Electronic Referrals to Ambulatory Care Pharmacists
- Outpatient Parenteral Antimicrobial Therapy
Introduction to HFH Pharmacy Services

- Inpatient Pharmacy
  - Medication safety brochure
  - Pharmacy services
  - May identify need for targeted pharmacy services or education
  - Preferred discharge pharmacy
Measures

- Number & percent of patients “touched”
- Revenue for discharge pharmacy
Pharmacy Transitions of Care Consults
Types of Inpatient Consults

- General Practice Unit Consults
  - Medication History & Adherence
  - Disease Specific
    - Acute Exacerbation of COPD
    - Acute Exacerbation of Heart Failure

- ICU TOC Planning Consults
  - Diabetes Mellitus (DM) Transition of Care Planning
  - Pulmonary Arterial Hypertension TOC planning
General Practice Unit (GPU) TOC Consults

- Medication History & Adherence
  - Verify & update med history
  - Discuss discrepancies
  - Identify non-adherence
  - Provide tools & strategies to improve adherence
  - Educate
  - If possible, refer to am care pharmacist

- Disease Specific Consults
  - Additional components
    - Optimize disease specific meds
Target Patients & Populations

- High Risk Readmissions
- Program of All-Inclusive Care for the Elderly (PACE) patients
- Integrated Michigan Patient-Centered Alliance in Care Transitions (I-MPACT)
- Those with non-adherence or med access barriers
- Plan to be discharged on new medicine
ICU TOC Consults

- **DM**
  - Ensure Access to DM Meds for Discharge
    - DKA or A1C >9% in the last 6 months on an insulin drip

- **PAH**
  - Ensure Access to PAH and CTEPH Meds for Discharge
    - PAH or CTEPH therapy
Hand-off

- Electronic medical record note
- Standard note template
- Electronic referral orders for am care pharmacist
- Alert for next inpatient pharmacist
  - Follow up on prior authorizations
  - More targeted review or education
Resident Requirements

Goal R1.2: *Ensure continuity of care during patient transitions between care settings*

- **2015-2016 Residents**
  - Implemented minimal TOC consults for PGY1s

- **2017-2018 Residents**
  - Increased total TOC consult requirements
  - Added quarterly targets
  - Added consult requirements for PGY2 hem/onc
  - Progress discussed monthly
2017 TOC Consult Changes

- Modified training requirement
  - All pharmacists are required to train
- Modified TOC consult format
  - Medication Adherence & Access
  - Medication History
  - Disease State Education
  - Medication Education
  - After competency, pharmacist chooses appropriate service
- Improved TOC Consult Notes
  - Reflects common services
- Increased resident requirements
Electronic Referrals to Ambulatory Care Pharmacist
Referral Order

- Sent as discharge referral
- Placed by inpatient pharmacist or provider
- No co-sign required
- Sent to specific clinic In-Basket
- Am care pharmacist provides follow up
- Each am care clinic developed referral criteria
Reasons for Referral

- Medication adherence
- Education
- Device training
- Medication access follow-up
- Other clinic-specific criteria
<table>
<thead>
<tr>
<th>Reason for Inpatient Referrals August 2014 and July 2015</th>
<th>Total Indications (n = 570)</th>
<th>Percent of Inpatient E-referral Orders (n = 268)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medication Adherence</td>
<td>147</td>
<td>55</td>
</tr>
<tr>
<td>Medication Education</td>
<td>131</td>
<td>49</td>
</tr>
<tr>
<td>Follow-up from Inpatient Pharmacy Consult</td>
<td>123</td>
<td>45</td>
</tr>
<tr>
<td>Optimization of Medication Therapy</td>
<td>103</td>
<td>38</td>
</tr>
<tr>
<td>Outpatient Parenteral Antimicrobial Therapy</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking Cessation</td>
<td>29</td>
<td>11</td>
</tr>
<tr>
<td>Other Disease State Follow-up</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Medication Cost Evaluation</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Vaccines</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>
Referrals Generated by TOC Consults

- Of 2239 TOC consults from 2014-2016, 406 (18%) resulted in referrals to ambulatory pharmacists
  - 2014-2015 Residency Year: 14.7% sent by residents
  - 2015-2016 Residency Year: 24.8% sent by residents
Outpatient Parenteral Antimicrobial Therapy (OPAT)
OPAT

- Used to treat invasive infections or to contain inpatient hospital costs
- Requires a thorough assessment
  - patient’s medical condition, especially infection
  - medical needs
  - inpatient antimicrobial regimen
  - Clinical parameters
  - insurance coverage
  - access to follow-up monitoring
HFH Detroit OPAT Process

Implemented May 2015

Infectious Diseases
- Approves OPAT
- Line placement, if required

Pharmacy OPAT Consult
- Optimizes OPAT regimen
- Educates patient/caregiver
- Documents discharge safety labs
- Places information in the patient’s EMR

Case Management
- Determines eligibility
- Sets up home infusion or placement
- Uses pharmacy consult to obtain medication prior auth

OPAT Discharge
## Pharmacist Checklist for OPAT Consult

<table>
<thead>
<tr>
<th>Checklist</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Is the patient likely to require outpatient IV therapy?</td>
<td>- Disease state that requires long term IV (e.g. osteomyelitis, endocarditis, MRSA bacteremia)</td>
</tr>
<tr>
<td></td>
<td>- No oral switch options (PO switch preferred for CAP and pyelonephritis)</td>
</tr>
<tr>
<td>□ Has infectious diseases consult evaluated the patient?</td>
<td>- ID approval required before PICC insertion or discharge for OPAT</td>
</tr>
<tr>
<td></td>
<td>- Yes, ID approval required for dialysis patients</td>
</tr>
<tr>
<td>□ Is the case manager aware?</td>
<td>- Case manager will evaluate insurance eligibility, capability to perform home infusion</td>
</tr>
<tr>
<td>□ Has the regimen and monitoring plan been optimized and simplified for the infection?</td>
<td>- Minimize the number of doses per day where possible</td>
</tr>
<tr>
<td></td>
<td>- Document if steady state has been achieved for PK drugs/ when steady state anticipated</td>
</tr>
<tr>
<td>□ Has the patient been educated on their discharge antimicrobial regimen?</td>
<td>- Provide written and verbal instructions about the antimicrobial therapy (use Clin Pharm Pt Education)</td>
</tr>
<tr>
<td>□ Has the OPAT referral for the ID am care clinical pharmacist been placed?</td>
<td>- Place discharge order if they are going to K10 for an “in-clinic” infusion</td>
</tr>
<tr>
<td>□ Was Pharmacy OPAT note placed in the patient’s record?</td>
<td>- Regimen and monitoring parameters</td>
</tr>
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Comparing Practice Models

Pharmacist OPAT Consult (HFH)

OPAT Team
- HFH ID Physician
- Unit-based Pharmacist (Non-ID trained)
- Case Management
- Nursing
- Home Infusion Service

Pharmacy OPAT Consult Service
began May 1, 2015

Standard of Care (HFWB)

OPAT Team
- HFH ID Physician
- Case Management
- Nursing
- Home Infusion Service

No Pharmacy OPAT Consult
OPAT Outcomes

- Line Complications: 10% HFH, 14% HFWB
- Adverse Drug Reactions: 8% HFH, 11% HFWB
- Antimicrobial related 30 day readmission: 10% HFH, 14% HFWB
Pharmacist OPAT Interventions

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Pharmacist OPAT Consult</th>
<th>Standard of Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regimen Simplification</td>
<td>26%</td>
<td>N/A</td>
</tr>
<tr>
<td>Renal Adjustment</td>
<td>30%</td>
<td>N/A</td>
</tr>
<tr>
<td>Dose Optimization</td>
<td>32%</td>
<td>N/A</td>
</tr>
</tbody>
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OPAT Consults

Number of OPAT Consults

- 2014-2015:
  - Residents: 17.9%
  - Pharmacy Staff: 82.1%

- 2015-2016:
  - Pharmacy Staff: 70.2%
  - Residents: 29.8%
TOC Opportunities

- Spread TOC and OPAT consults to other hospitals in system
- Spread residency requirements to Macomb
- Add additional ambulatory care sites
- Increase provider requested inpatient TOC consults
Questions?