**Hematology/Oncology: Improving Patient Flow through Simplified Scheduling**

**The Problem**
The Division of Hematology Oncology identified an opportunity to transform the management of provider schedules by leveraging schedule templates in CCC. Historically, providers would spend 1-2 hours weekly reviewing the accuracy of their schedules. Schedulers would “hard book” or manually enter each visit for all appointments, coordinating a number of patient needs including the coordination of treatment visits and research visits. This created an unnecessary administrative burden as well as increased likelihood for errors. In addition, patients were being double booked with attending physicians, fellows, and nurse practitioner’s causing bottlenecks in patient flow.

**Aim/Goal**
The Gastrointestinal & Hepatobiliary Cancer program requested to pilot an approach to design and manage schedule templates that would decrease the administrative burden, improve patient flow, and increase patient visits.

**Primary Measures:**
- Develop standardized appointment types and lengths for physicians, fellows, and nurse practitioners – including independent nurse practitioner visit types
- Evaluate and establish RVU and patient volume standards
  - Attending sessions: 7-8 patients / 10-11 RVU’s per 4 hour session
  - Attending sessions with fellow and/or nurse practitioner: 11-12 patients / 14-15 RVU’s per 4 hour session
- Reduce the number of scheduling errors by decreasing physician requested cancelations by 5% (Baseline: on average 200 requests per month for GI)
- Evaluate and establish a standard for appointment availability
- Eliminate double booking

**Secondary Measures:**
- Evaluate patient flow by measuring whether patient visits start on time – patients roomed within 5 minutes of scheduled appointment time.
- Increase attendance from 0% to 10-50% GI provider are able to attend Wednesday’s GI Oncology conferences

**The Team**
- Rebecca Miksad, Physician
- Diane Savarese, Physician
- Andrea Bullock, Physician
- Benjamin Schlechter, Physician
- Jessica Zerillo, Physician
- Carol Pilgrim, Nurse Practitioner
- Lois Hartsough, Administrative Manager Clinical Operations
- Tyler Britton, Practice Coordinator
- Michelle McGrory, Nursing Director
- Kelly Noonan, Practice Manager
- Amanda Souza, Administrative Assistant
- Irene Jordan, Application Specialist - Ambulatory Systems
- Chris Rodrigues, Senior Project Manager - Office of Improvement and Innovation

**The Interventions**
From July through December 2015, the team designed a strategy to build a standardized schedule template for physicians, fellows, and nurse practitioners.
- Standardized appointment types and lengths using 20 and 40 minute visit types for revisits
- Designed a provider template blueprint to visualize the flow of patient visit types developed in CCC to automate the scheduling process using special features such as concurrent visits and max lead time
- Pilot a new check out process including a new check out slip to improve communication between providers and schedulers

**The Results/Progress to Date**
In January 2016 templates went live in CCC. The team is in the early phases of refining templates and the scheduling process.

The following is a pre and post comparison of Hem/Onc provider schedules. The original model relied on double booking patients in 30 minute slot. The new model utilizes a staggered start method to align the needs of the patient with the appropriate amount of provider time.

**Before – 30 minute appointment types**

<table>
<thead>
<tr>
<th>Time</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:30 – 11:00 am</td>
<td>NP Revisit with Staff [Gonzo], Revisit [Piggy]</td>
</tr>
<tr>
<td></td>
<td>Fellow Visit [Beaker]</td>
</tr>
<tr>
<td>11:00 – 12:00 pm</td>
<td>New Patient [Kermit]</td>
</tr>
</tbody>
</table>

**After – 20 and 40 minute appointment types**

<table>
<thead>
<tr>
<th>Time</th>
<th>NP Schedule</th>
<th>Fellow Schedule</th>
<th>Attending Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:40</td>
<td>NP Revisit [Gonzo]</td>
<td></td>
<td>Revisit [Piggy]</td>
</tr>
<tr>
<td>11:00</td>
<td>Independent NP Visit [Beaker]</td>
<td>New Patient Visit with Fellow [Kermit]</td>
<td>Revisit [Fozzie]</td>
</tr>
<tr>
<td>11:20</td>
<td>Independent NP Visit [Ralph]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:40 – 12:00 PM</td>
<td>Independent NP Visit [Scooter]</td>
<td></td>
<td>New Patient Visit with Fellow and Staff [Kermit]</td>
</tr>
</tbody>
</table>

**Lessons Learned**
- The appointment type design and development process required clarity and alignment of roles and responsibilities.
- There are a number of ways to manage and design schedules in CCC.

**Next Steps/What Should Happen Next**
- Will measure template effectiveness by measuring patient volume, appointment availability, as well as process measures such as on time start.
- February through April, monthly meetings will gather feedback on how to improve template performance as well as develop care coordination workflows to optimize patient flow.

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