Project Title: Outpatient oncology office telephone system improvement project

Presenter’s Names: Ellen Ronnen, MD and Tina Flocco, APN
Institution: Regional Cancer Care Associates: Central Jersey Division

Date: 3/6/14
Institutional Overview

- Regional Cancer Care Associates is an Oncology physician network (92 Oncologists 32 NPs) in New Jersey, providing over 50% of the cancer care in NJ. RCCA is made up of 11 community private practice groups.
- The Central Jersey Division has 7 physicians and 2 NPs and works out of two offices. The Division sees 20,000 pts per year with 2500 new visits per year.
Problem Statement

- Telephone access for patients is their primary mode of communication with a doctor’s office; ineffective phone systems results in patient low satisfaction rates. 30% of RCCA-CJ Division’s patients in November 2013 perceived a call wait time longer than 5 minutes, 30% did not have their call reason resolved and 42% expressed dissatisfaction with the phone system.
Team Members

Team Leader:
- Ellen Ronnen, MD

Team Members:
- Allied Health Care - Tina Flocco NP
- Front Desk Managers – Tom Ryan, Stacy Rosa
- Front Desk Staff- Fatima Braxton, Elaine Brown, Camille Fisher, Christina Flores, Denise Geres, Alexandra Greico, Ashley Gruich, Janeen McLendon, Fran Michalski,

Project Sponsor:
- Bruno Fang, MD

Improvement Coach:
- Amy Guthrie, RN
Dear Dr. Karp,

Today I missed my first Oncology Appointment in 14 years – and it wasn’t my fault. My Appointment Card shows my appointment for today at the New Brunswick Office at 205 Easton Ave. I didn’t get a reminder call but I wrote that off to yesterday being Columbus Day. My husband took the day off to cover babysitting for our Granddaughter, and as is my custom, I set off for my appointment with a goal to arrive 15 minutes early. **Imagine my surprise and distress when I arrived at the office, only to find the building was no longer there – just a hole in the ground.**

Returning home, I called the office number, and after several minutes, I was routed to an operator, who informed me that the office was now in Somerset. She then said I was being transferred me to the main desk, but the phone rang for 20 minutes with no answer. I drove over to the East Brunswick Office, and the receptionist tried to help – she spoke to you and set me up for a replacement appointment at 12:40 – cutting it close but she said you would keep it open until 1:00. She wrote out some directions and gave me a card with a phone number that was supposed to be the direct phone number to the desk in Somerset. I ran into traffic and was a little lost trying to follow the directions but was still trying to get there – I pulled over to call the office at the number I was given – 732-271-4398. **I was told that the number I dialed is no longer in service.**
People/staff
- Sick calls resulting in fewer staff members to answer phones
  - Patients moods slowing down front desk
  - Patients at front desk by mistake (should be at chemotherapy scheduling area)
  - Front desk staff leaving desk and not putting phone on "do not disturb"
  - Front desk asked to fulfill requests inappropriately
  - Inadequate training of operators
  - Inadequate training of front desk

Mechanical
- Limited lines on each phone
- Operator sending calls when front desk on phone b/c can’t see when phone is in use
- Front desk staff leaving desk and not putting phone on “do not disturb”
- EMR goes down at times bringing work to a halt
- Doctor requests unreasonable things
- Volume of phone calls too high for number of staff members
- Scheduling chemotherapy at the hospital
- Structure requires FD to be answering phones while taking care of live patients checking out:
  - Lack of standardized procedures at front desk; high variability

Schedule

External forces

Patient can’t get their issues resolved with front desk in person or on phone
Cause & Effect Diagram

People/staff
- Sick calls resulting in fewer staff members to answer phones
  - Patients moods slowing down front desk
- Patients at front desk by mistake (should be at chemotherapy scheduling area)
  - Front desk asked to fulfill requests inappropriately
  - Inadequate training of operators
  - Inadequate training of front desk
- Intake calls time consuming
- Doctor has no available appts
- New patient with complicated needs
- Radiology/blood transfusion requests take long time to schedule

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Operator sending calls when front desk on phone b/c can’t see when phone is in use

Front desk staff leaving desk and not putting phone on “do not disturb”

EMR goes down at times bringing work to a halt
Diagnostic Data

- Complaints about phone system from patients and other health care providers
- Operator poll found most calls for front desk and nursing
- Cause and effect diagram created during two brainstorming sessions with front desk staff (10 employees)
- Scheduling was identified as the main branch contributing to problem
- At both sessions, all FD staff stated “difficulty scheduling doctor’s appointments due to lack of appts available” was greatest obstacle to completing phone calls in a timely manner
- Radiology/biopsy scheduling and managing complicated new patient requests identified as second biggest problem in tying up phones
Aim Statement

• By February 15, 2014, 80% of RCCA-CJ Division’s outpatients will perceive a telephone call wait time less than 5 minutes, 80% will have their telephone call reason resolved at call completion and 68% will be satisfied with the phone system.
# Measures

<table>
<thead>
<tr>
<th>What is your measure?</th>
<th>Process Measure</th>
<th>Outcome Measure</th>
<th>Balance Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Wait times for making appts</td>
<td>Improve patient satisfaction with the phone system</td>
<td>Wait time for appt in person</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient population (exclusions if any)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>All adult patients accessing outpatient phones for appt</td>
<td>All adult phone program patients</td>
<td>All adult pts visiting office needing appts</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Calculation methodology</th>
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<tbody>
<tr>
<td></td>
<td>Time patient calls; time patient appt is made</td>
<td>Numerator: Pts filling out survey who feel satisfied with phone system usually or always. Denominator: All patients filling out survey</td>
<td>Time patient gets to the front desk; time appt is made</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Data source</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Operator/front desk staff, audit trails</td>
<td>Pt surveys</td>
<td>Front desk staff/audit trails</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data collection frequency</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>All appts made over two months by phone</td>
<td>Surveys collected over 1-2 weeks each 8 weeks</td>
<td>All appts made in person for two months</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data Quality</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Requires accurate writing of time called and data extraction from audit trail</td>
<td>Requires pts to accurately complete surveys; subjective</td>
<td>Requires accurate documentation by front desk of time pt arrives there for appt</td>
</tr>
</tbody>
</table>
Baseline Data

100 outpatients surveyed

Wait time: wait time < 5 minutes when calling outpatient office
Issue resolved: Issue resolved when phone call complete
Satisfaction: Patient satisfied with telephone system
<table>
<thead>
<tr>
<th>Impact</th>
<th>Example:</th>
<th>Ease of Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Change physician templates to add appts</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Separate from front desk flow radiology/biopsy scheduling</td>
<td></td>
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<tr>
<td></td>
<td>Standardize front desk training</td>
<td></td>
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<tr>
<td></td>
<td>Separate from front desk flow new patient diagnostic testing</td>
<td></td>
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<tr>
<td>Low</td>
<td>Nursing secretary to obtain MUGA and other results pertinent to chemo</td>
<td>High</td>
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<tr>
<td></td>
<td>Revert back to old phone system (no operator)</td>
<td></td>
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<tr>
<td></td>
<td>Change physicians behavior with unreasonable requests for front desk</td>
<td></td>
</tr>
</tbody>
</table>
## Prioritized List of Changes (Priority/Pay-Off Matrix)

<table>
<thead>
<tr>
<th>Example:</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change physician templates to add appts</td>
<td>Separation</td>
<td>Separate from front desk flow</td>
</tr>
<tr>
<td></td>
<td>from front</td>
<td>radiology scheduling</td>
</tr>
<tr>
<td></td>
<td>desk training</td>
<td></td>
</tr>
<tr>
<td>Nursing secretary to obtain MUGA results pertinent to chemo</td>
<td>Revert back</td>
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<td></td>
<td>to old phone</td>
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<td></td>
<td>system</td>
<td></td>
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<td></td>
<td>(no operator)</td>
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<tr>
<td></td>
<td>Change</td>
<td></td>
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<tr>
<td></td>
<td>physicians</td>
<td></td>
</tr>
<tr>
<td></td>
<td>behavior</td>
<td></td>
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<tr>
<td></td>
<td>with</td>
<td>unreasonable requests for front desk</td>
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</tbody>
</table>

## Ease of Implementation

- **Easy**
- **Difficult**
Follow up data

100 outpatients surveyed

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wait times</td>
<td>85</td>
<td>15</td>
</tr>
<tr>
<td>Issue resolved</td>
<td>76</td>
<td>24</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>80</td>
<td>20</td>
</tr>
</tbody>
</table>

**Wait time**: wait time < 5 minutes when calling outpatient office

**Issue resolved**: Issue resolved when phone call complete

**Satisfaction**: Patient satisfied with telephone system
Follow up data

- Operator and FD was directly observed
- Average daily calls to operator: 340
- Of 340 average calls, 118 (35%) go to FD
- Of 118 calls, 60 (approx 50%) are for appts
Follow up data

- 80 patients waiting to get check out appts
- 60 calls from operator; 30 needing appt
- 30 calls from the MDs/NPs in office
- 10 patients needing appt for blood transfusion
- 5 patients needing inpatient Chemo arranged
- 10 patients needing further Path testing (forms done and confirmation path sent)
# PDSA Plan (Tests of Change)

<table>
<thead>
<tr>
<th>Date of PDSA cycle</th>
<th>Description of intervention</th>
<th>Results</th>
<th>Action steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2/14-2/10/14</td>
<td>Change physician templates to increase # of daily appts available</td>
<td>Front desk stated appts easier to make</td>
<td>Keep changed templates</td>
</tr>
<tr>
<td>1/2/14-2/10/14</td>
<td>Create patient liaison position to separate out radiology/biopsy and new pt testing scheduling from front desk flow</td>
<td>Patient satisfaction increased and wait times decreased Issues weren’t more consistently resolved at call end</td>
<td>Add appointment line</td>
</tr>
</tbody>
</table>
Follow up data

100 outpatients surveyed

**Wait time**: wait time < 5 minutes when calling outpatient office

**Issue resolved**: Issue resolved when phone call complete

**Satisfaction**: Patient satisfied with telephone system
Process Map

Patient Calls
  Operator
    Schedule biopsy
    Request biopsy
    Appointment Requested
  Schedule labs
  Fax labs requested
  Message for MD

Ring front desk
  Line free? Yes
    Appointment Requested
    Slot open? Yes
      Appointment Made
    Slot open? No
      No

Test measure: Add liaison for Rads/biopsies to free up phones

Test measure: Add appts to MD templates
## Telephone System Survey

<table>
<thead>
<tr>
<th>Question</th>
<th>Response format</th>
</tr>
</thead>
<tbody>
<tr>
<td>When I call, an operator answers within two minutes.</td>
<td>N / S / U / A</td>
</tr>
<tr>
<td>When I call, an operator answers within five minutes.</td>
<td>N / S / U / A</td>
</tr>
<tr>
<td>When I call, I’m transferred to the correct person, the first time.</td>
<td>N / S / U / A</td>
</tr>
<tr>
<td>After I’ve told the operator my issue, I am transferred to the correct person within two minutes.</td>
<td>N / S / U / A</td>
</tr>
<tr>
<td>After I’ve told the operator my issue, I am transferred to the correct person within five minutes.</td>
<td>N / S / U / A</td>
</tr>
<tr>
<td>When my call is complete, my issue has been addressed.</td>
<td>N / S / U / A</td>
</tr>
<tr>
<td>When I call for a follow up appointment, the appointment is made when I am on the phone.</td>
<td>N / S / U / A</td>
</tr>
<tr>
<td>When I hang up the phone, I’ve left a voice mail as my final action.</td>
<td>N / S / U / A</td>
</tr>
<tr>
<td>When I call, I’m satisfied with the telephone service.</td>
<td>N / S / U / A</td>
</tr>
</tbody>
</table>
## Operator Data Collection Sheet

<table>
<thead>
<tr>
<th>Name</th>
<th>Message for MD</th>
<th>Billing</th>
<th>Pharmacy</th>
<th>Symptom (triage)</th>
<th>Meds</th>
<th>MD Appt</th>
<th>Lab appt</th>
<th>Treat appt</th>
<th>Schedule Rads blood biopsy</th>
<th>Other</th>
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Conclusions

• FD staff reported that they experienced less difficulty with finding slots
• Exceeded goal of 80% patients with decreased phone wait times: 82%
• Did not meet goal of 80% call reason resolved at call resolution: 76%
• Using a patient liaison to schedule all radiology and biopsies appeared to decrease patient perceived waits on phones
• Patient satisfaction did increase after changing physician templates and creating liaison position
  – Goal: 68%, result was 80%
Lessons learned

• Suspicious of results
  – Possible survey fatigue; practice also submitted general survey at same time
• Phone survey likely did not capture patient experience
• Need quantifiable measures to better reflect problem and improvement
• Gaps in training impede flow
• Needed to better understand flow of operator-front desk before making changes
  – Direct observation needed
Next Steps/Plan for sustainability

- Manually collect data on calls to operator and FD
- Listen to audio files from operator and FD
- Patient focus group
- Test of change: reinstitute limited automated operator to separate out appointment calls and have designated protected appointment line staff
- New measures to better test patient experience
  - Time patient calls for an appointment/time appointment is made
  - Continue patient satisfaction surveys
- Study training of FD with specific policies as well
  - Evaluate compliance with “activity trail” for Radiology/Biopsies
  - Gaps in training impede flow
- Mandatory monthly meetings
Improving Telephone Call Wait Times, Call Resolution, and Satisfaction for Patients Utilizing Oncology Outpatient Telephone System

**AIM:** By February 2014, 80% of RCCA-CJ Division’s outpatients will perceive a telephone call wait time less than 5 minutes, 80% will have their telephone call reason resolved at call completion and 68% will be satisfied with the phone system.

**INTERVENTION:**
- Change MD templates to increase number of pt appointments
- Create protected pt liaison position with no other front desk tasks.
- Monthly FD meetings to discuss progress, problems, changes, and ensure compliance
- Standardized front desk training to improve efficiency

**RESULTS:** 100 outpatients surveyed

<table>
<thead>
<tr>
<th></th>
<th>October, 2014</th>
<th>February, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wait time</td>
<td>80% ≤ 5 min</td>
<td>82% ≤ 5 min</td>
</tr>
<tr>
<td>Issue resolved</td>
<td>70%</td>
<td>80%</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>60%</td>
<td>70%</td>
</tr>
</tbody>
</table>

**CONCLUSIONS:**
- FD Staff reported they experiences less difficulty with finding appointment slots
- Exceeded 80% of patients having shortened wait time: 82%
- Using a patient liaison to schedule all radiology and biopsies appeared to decrease patient’s perceived waits on phones
- Exceeded goal of improving patient satisfaction by 10%: 22% increase.
- FD staff morale improved.

**NEXT STEPS:**
- Manually tally calls to operator/FD; Listen to audio files
- Test of change: reinstitute limited automated operator to separate out appointment calls and have designated protected appointment line staff
- Track time patient calls for an appt/time appointment is made
- Continue patient satisfaction surveys
- Study training of FD with specific policies as well

**TEAM:** RCCA–CJ Division
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- Front Desk Staff
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- Improvement Coach: Amy Guthrie, RN