“One Stop Shopping” Care Delivery

Bringing Coordinated Children’s Ambulatory Services to Life
Presenters

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The University of Virginia Battle Building – Children’s Ambulatory Center
The Story Begins…
Guiding Principles

With the opportunity to open an integrated specialty service outpatient center for children, we aspired to:

• Establish a medical home for children with complex or multi-system disorders
• Emphasize family and patient centered care
• Develop an environment that delivers the highest quality specialty care.
Guiding Principles Continued…

• Develop flexible space that supports excellent clinical care, teaching and research while supporting the needs of our community
• Optimize the quality of the care that we deliver through improved operational effectiveness by instituting standard approaches for processes across services and patient populations
• Create a space for women with high risk pregnancies that provides evidenced based practice, quality care, and efficient processes and procedures
Battle Building Operations Planning

- Steering Committee
  - Core Working Group
    - Sedation & Emergency Response Workflow
    - Clinical Process: Staff & Provider
    - Clinical Process: Patient
    - Building Operations
    - Communications & Information Flow
Operations Planning

- Steering Committee included representatives from various clinical disciplines.

- 300 + staff and faculty participated in the design phase.

- Work Groups included five primary teams and 32 specialty/ancillary user/stakeholder groups including parents and families for a total of 276 persons.
Five Major Differentiating Initiatives

Intermingled Clinics using a Neighborhood Concept
Added Services available in a single location
Patient Centered Scheduling
Real Time Status Board
Telemedicine
Intermingled Clinics–Neighborhood Concept

- Three to five subspecialties with a common patient diagnosis in each neighborhood for a total of 50 clinic types.
- Facilitates Cross Communication
- Real Time Conferring
- Some management of care with staff moving rather than patient.
Clinic Neighborhood Concept
Scheduling - Initial State

• Completely decentralized with utilization of >50 persons scheduling for more than 100 clinic types
• Manual process – multiple phone calls/scheduling system entries
• No standardization/delays/lack of coordination/frequent errors
• Systems and processes don’t support multiple clinic visit scheduling
Patient-Centered Scheduling Program Goals

• Single process with one-call capability
• Improve access/customer service/room utilization rate/productivity
• Reduce “no shows”
• Smooth activity through the week
• Benchmark against industry standard
Centralized Scheduling Program

- Provided opportunity for clinics to evaluate schedules and templates and improve efficiencies in how they see their patients
- Engaged consultants for assessment, planning and initial implementation
- No show rate decreased in all three pilot clinics
- Roll out to all clinics over 18 months (process interrupted due to EPIC build-out, target completion September 2016)
Urology decreased its no show appointment rate by 10% from June to September.
GI decreased its no show appointment rate by 3.5% from June to September
The decrease in no-shows has a positive return to UVaMC

<table>
<thead>
<tr>
<th>Clinic</th>
<th>Percent decrease in no show rate</th>
<th>Volume of attended appts (Jan - Aug 2014)</th>
<th>Monthly attended appts</th>
<th>Monthly increase in attended appts</th>
<th>Average net reimbursements (July - Sep 2014)</th>
<th>Estimated annual net revenue benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urology</td>
<td>10.0%</td>
<td>2,230</td>
<td>280</td>
<td>28</td>
<td>240</td>
<td>60,600</td>
</tr>
<tr>
<td>GI</td>
<td>3.5%</td>
<td>2,850</td>
<td>380</td>
<td>13</td>
<td>320</td>
<td>48,400</td>
</tr>
</tbody>
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<td>10.0%</td>
<td>2,500</td>
<td>280</td>
<td>28</td>
<td>200</td>
<td>67,200</td>
</tr>
<tr>
<td>GI</td>
<td>3.5%</td>
<td>3,830</td>
<td>430</td>
<td>15</td>
<td>170</td>
<td>30,700</td>
</tr>
</tbody>
</table>

- Total estimated net revenue benefit for facility and professional fees:
  - Urology: $147,800
  - GI: $78,100

- The above calculation is represents the estimated increase in net revenue annualized based on initial results from the pilot for Urology and GI for the Medical Center and professional fees. These estimates are directional in nature.
- The average net reimbursement is based on the payer mix for the time period outlined.
- The average total payment for the MC is based on clinic visits and procedures.
Decreasing schedulers involved results in improved patient experience

<table>
<thead>
<tr>
<th>Division</th>
<th>Number of schedulers</th>
<th>Number of schedulers, who schedule 80% of appointments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CY14</td>
<td>PFCS go-live</td>
</tr>
<tr>
<td>Urology</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>GI</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td>Cerebral Palsy</td>
<td>16</td>
<td>3</td>
</tr>
</tbody>
</table>

- There have been significant strides to reduce the number of schedulers within pilot for PFCS.
- This decrease improves patient satisfaction and also improves the productivity of our staff.
- The number of schedulers listed above represent the number of current user ID’s. As PFCS matures, there will no longer be non-PFCS roles scheduling.
Patient Centered Scheduling Update

Dev Peds, % of Total Visit Count With One Or More Additional Visits On the Same Day

NoShow Rate = NoShow/(Attended + Active + NoShow+Cancel)
Patient Centered Scheduling Update

Peds Card, % of Total Visit Count With One Or More Additional Visits On the Same Day

NoShow Rate = NoShow/(Attended + Active + NoShow + Cancel)

Cardiology
Patient Centered Scheduling Update

Ped Ortho, % of Total Visit Count With One Or More Additional Visits On the Same Day

NoShow Rate = NoShow/(Attended + Active + NoShow + Cancel)

Orthopedics
Status Board

• Able to visualize individual provider to clinic, floor, & building which allows opportunities to maximize or optimize room usage through real time viewing

• Greatest gift is having data that can be mined to reevaluate templates to improve through put and maximize room utilization
### Status Board Locations

<table>
<thead>
<tr>
<th>Status</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check In</td>
<td>White</td>
</tr>
<tr>
<td>Waiting room</td>
<td>Yellow</td>
</tr>
<tr>
<td>Intake in progress</td>
<td>Yellow</td>
</tr>
<tr>
<td>Intake complete</td>
<td>Red</td>
</tr>
<tr>
<td>Med Student in Rm</td>
<td>Light blue</td>
</tr>
<tr>
<td>Resident in Rm</td>
<td>Light blue</td>
</tr>
<tr>
<td>Attending/LIP to see</td>
<td>Light blue</td>
</tr>
<tr>
<td>Attending/LIP in Rm</td>
<td>Dark Blue</td>
</tr>
<tr>
<td>Procedure</td>
<td>Dark Blue</td>
</tr>
<tr>
<td>Ready for nursing, orders pending</td>
<td>Light Green</td>
</tr>
<tr>
<td>Ready for discharge, orders pending</td>
<td>Light Green</td>
</tr>
<tr>
<td>Discharged from Clinic</td>
<td>Gray</td>
</tr>
<tr>
<td>Check Out</td>
<td>fall off status board</td>
</tr>
<tr>
<td>Awaiting Admission</td>
<td>White</td>
</tr>
</tbody>
</table>
A2K3 Total Patient Count (Sept 2015)
Gen Peds, Median Times (min)
Data: Schedule Board, Sep 2015

- Attending In Room To Chk Out: 28, 38%
- Resident in Room To Attending In Room: 16.5, 22%
- Patient Assigned Room To Resident In Room: 24.1, 32%
- Patient in Waiting Room To Patient Assigned Room: 6, 8%
**Summary Report for Appt Time - Waiting Room**

Anderson-Darling Normality Test
- A-Squared: 8.99
- P-Value: <0.005

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>-2.954</td>
</tr>
<tr>
<td>StDev</td>
<td>23.783</td>
</tr>
<tr>
<td>Variance</td>
<td>565.642</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.18644</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>4.39911</td>
</tr>
<tr>
<td>N</td>
<td>677</td>
</tr>
<tr>
<td>Minimum</td>
<td>-105.750</td>
</tr>
<tr>
<td>1st Quartile</td>
<td>-15.233</td>
</tr>
<tr>
<td>Median</td>
<td>-1.267</td>
</tr>
<tr>
<td>3rd Quartile</td>
<td>9.558</td>
</tr>
<tr>
<td>Maximum</td>
<td>130.867</td>
</tr>
</tbody>
</table>

95% Confidence Intervals
- Mean: ** -1.160 | -4.749
- Median: -3.232 | -0.018
- StDev: 22.580 | 25.123

Summary Report for Appt Time - Waiting Room
Summary Report for Appt Time - Chk Out

Anderson-Darling Normality Test

<table>
<thead>
<tr>
<th>A-Squared</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.03</td>
<td>&lt;0.005</td>
</tr>
</tbody>
</table>

| Mean         | 85.086 |
| StDev        | 42.326 |
| Variance     | 1791.474 |
| Skewness     | 2.14100 |
| Kurtosis     | 8.93252 |
| N            | 825 |

| Minimum      | 2.600 |
| 1st Quartile | 59.092 |
| Median       | 78.800 |
| 3rd Quartile | 101.200 |
| Maximum      | 395.833 |

95% Confidence Interval for Mean
82.194 87.979

95% Confidence Interval for Median
76.295 81.145

95% Confidence Interval for StDev
40.377 44.473

95% Confidence Intervals

Mean
Median

75.0 77.5 80.0 82.5 85.0 87.5
What the Data Tells Us...

- Staff are not consistently timestamping locations.
- Visits check-in to check-out are much longer (55 minutes) than scheduled visit time.
- Drives greater understanding of actual time needed for a visit versus opportunity for making process more efficient.
Telemedicine

- Remote visits allow patient visits from home community
- Using for clinic visits – use increasing
- Typically used for follow up appointments
- Using Jabber software
Patient Satisfaction

• Overall scores difficult to trend – questions changed, so don’t have comparisons by specific question
• “N” very small
• Using anecdotal information to address 77% of comments positive
Battle Building – Pediatric Clinic Patient Complaints

Patient Complaints - All Battle
Press Ganey Patient Satisfaction Surveys Received Jan-Oct, 2015

- Complaint Count
- Cumulative%
How Did We Do?

- Neighborhood concept working well
- Scheduling – improving, continuing roll out
- Added Services - finding more opportunities
- Status Board – timestamping not accurate
- Telemedicine – just beginning, need to evaluate effectivity
Next Steps

- Develop and Integrate retail pharmacy delivery program
- Complete Centralized Scheduling Roll-out
- Re-educate and refine use of Status Board
- Formal Post Occupancy Evaluation
Questions?