

Patient Access

The Journey to Just Say Yes

2013

As part of an ongoing effort to provide the healthcare industry with leading practice information and strategies, FTI Consulting Health Solutions has partnered with Duke Medicine and its Private Diagnostic Clinic (PDC) to assess how to increase the availability of patient appointments in selected departments. The effort involves developing new governance and management structures to engage and challenge all practices to oversee Access using new tools and methods. This introductory paper outlines the activities inside the project as Duke Medicine strives to increase patient access during a time of increased competition, enhanced consumer demand for timely and quality service, healthcare reform, and expansion of hospital facilities, the Cancer Center, and its Private Diagnostic Clinic physical footprints.

The project focuses on two key elements:

1. A new framework to operate and manage the resources tied to the Appointment Management function that engages and collaborates with physicians, seeks to solve the barriers to Access in a collaborative way, and increases accountability to meet standards recently developed by PDC leadership.
2. Use of the "Access Algorithm," a proprietary tool provided by FTI that measures Access across various specialties in a balanced and unbiased way, "scores" how well Access is achieved by clinical departments, and identifies which areas should be targeted for improvement.

This article also covers how researching, engaging, and at times challenging legacy care models with departmental leaders led to innovation at the department level, sponsored by service chiefs, Vice-Chairs, and business leaders. Strategies were monetized for financial impact including the additional number of patients who could be seen per day and percent increase in overall patient volumes. Topics included the usage of Advanced Practice Provider (APP) resources to independently provide less-intensive services, allowing physicians to open up their schedules to

accommodate more new patients, which can also lead to greater downstream revenues for supplementary hospital services. The team also evaluated same day/next day appointment rules, the impact of "bumping," overall schedule efficiency, and after-hours and weekend services.

Finally, a transition to the Epic practice management system was also underway at this time. Leading practices were identified and shared to help utilize key functions within Cadence to use technologies in a more consumer-focused manner to reduce no-shows and cancellations.

Introduction to Patient Access:

For purposes of this article, Patient Access is defined as the functions, systems, and resources of a clinical practice organization that operate in tandem to provide the patient with the ability to obtain an appointment. This includes the activities of the patient who is attempting to obtain that same appointment. These two critical aspects come together in very much the same way a "supply and demand" model operates. However, price is usually not the defining factor as with most economic models, since healthcare is more influenced by timing (time of day and day of week) and proximity (clinic address), as patients seek services when feeling sick or unhealthy with a sense of urgency. Health care organizations have numerous benchmarking tools at their disposal to gauge performance relative to peer providers, e.g., MGMA, UHC, or AMGA, to name just a few, to evaluate whether or not better performance could/should be reasonably expected. Still, very few benchmarking materials exist to evaluate patient access, i.e., controllable metrics that assess how readily patients can be brought into the system to be seen in an appropriate and timely manner. Technology and a greater emphasis on consumer awareness have empowered patients with enhanced knowledge of the choices available to them. In addition, the payer strategies to tier physicians based on quality and service standards may also impact the future expectations of patients and where they choose to seek care.

While provider reputation always plays a key role in any decision, the ability to be seen quickly and easily often trumps the desire to see a particular provider. Health care organizations have tried

to counter the competition by setting up satellite offices and clinics in strategic locations with cozy interior comforts, but these major investments still fall short of their desired intent if the patient cannot get in the door quickly and without undue hassle.

Current State at Duke:

As one of the nation's leading and most well-known academic healthcare systems, Duke Medicine and its Private Diagnostic Clinic (PDC) also face pressures to maintain various missions of quality patient care, teaching, and research under a changing marketplace. Reimbursement issues, competition in the local/regional markets, expanding locations, and building new campus facilities all place a premium on growing patient volumes that supports the financial viability of the organization.

PDC leaders embarked in early 2012 to develop "Access Standards" for the organization to adopt and operationalize. These standards helped communicate that the legacy culture and methods for appointment management could not support a "Just Say Yes" mindset without significant changes. These Standards brought a new focus on Access. A decision was made to partner with FTI Healthcare to assess the state of Access within the PDC and determine strategies to increase appointment availability for six services: Gastroenterology, General Surgery, Cardiology, Neurology, Orthopaedics, and Medical Oncology. The goal was to identify potential improvements which could be implemented across the Practice Plan. In addition, best practices to utilize the EPIC Cadence Scheduling application were requested, as Duke was in the build stages and wished to obtain a better understanding of the capabilities and opportunities available to leverage new methods during this window of time to challenge existing norms.

FTI was asked to define an overall governance and operational model to manage Access within the PDC and incorporate standards to enable the above initiatives to be successful for the long term. Their interest was in a structure that created more accountability and tactics that could assist departments that have traditionally had to manage access, patient care and general operations all at once. The new structure should be able to leverage analytics, leading practices, and provide oversight and continuing education across the entire practice plan.

Access Structure & Governance:

Clinical and practice leadership initiated the movement toward improved appointment management with certain Access Standards published in early 2012. These standards were designed to spur innovation and "new thinking" across the PDC operational spectrum. The standards were:

- Clinicians will understand and meet their clinical obligations
- Appointment Templates will meet PDC, Department, and Division Standards
- Adopt a consistent new patient appointment availability standard

- Patients unable to keep their appointments will be consistently accommodated
- Communications to referring physicians will be timely

FTI was asked to evaluate the current governance model and its ability to support these standards and provide organizational structure options that enhance the likelihood of long term success.

As with many health systems, governance was segmented across numerous entities inside Duke Medicine, including the hospital, Cancer Center, and the PDC. Employees involved in Access functions did not report to one authority. Oversight was decentralized to the departments' either owning their own appointment "hubs" that included staff and the related functions, or to a centralized entity called the PRMO (Patient Revenue Management Organization) that performed the scheduling function on behalf of the department. Access metrics and information were available but rarely used to create change in procedure or policy. Thus, while the Access standards were clear and specific, the current model did not support a means to know if these standards were being implemented and actively managed. In addition the current clinic management structure was geographic in nature and left Access to be managed mostly by a local clinic leader who was not able to see the department as a whole or leverage resources across an entire department to solve access or appointment-related issues or bottlenecks.

FTI provided three key recommendations regarding governance that supported the consolidation of current resources and oversight into one practice-wide structure:

1. Designate one entity to which all Access Resources have a reporting relationship. Empower that entity to determine policy, set performance standards, and assist in meeting them.
2. Provide more information beyond Key Performance Indicators to clinical leaders. Include strategies to improve operations and scheduling protocols, which are most successful when implemented in partnership with department leaders.
3. Assign the Practice Plan Board with the task of reviewing progress toward the Access Standards. Designate an "Access sub-committee" to provide operational influence. Selected sub-committee members can also become involved in mediating issues as necessary.

These recommendations were enabled with the formation of a new internal team designed to execute the above concepts. The "Access Practices Team" (APT) would be staffed with a combination of analysts, scheduling experts, and operational managers who could fulfill the above concepts and report directly to a Practice Plan COO or other high level executive.

This APT team is designed to accomplish the following:

*Provide central oversight and implement scheduling protocols throughout the organization's scheduling-specific staff. Employees would now report to an APT Director-level leader, with

the practice providing onsite direction only as needed. Additionally, requests for clinic cancellations would require approval of APT leadership, using specific criteria that would be endorsed and supported by the PDC Access sub-committee.

*Develop and deploy robust analytics regarding the department's access performance, to which departmental leaders would now be held accountable. Display information in new ways that highlight opportunities to collaborate on change ideas and implementation, while tracking these decisions through the same analytics and tools. A good example of this is reviewing the no-show issues within a department and modifying operations to improve that metric based on trends in patient types, financial class, days of week/time of day, use of technologies, and other considerations such as overbooking.

*Engage physicians directly regarding scheduling templates, visit types, appointment durations, etc. This requires specific skill sets and emotional intelligence to be successful, but when done correctly can support providers in meeting one of the key standards (Clinicians will understand and meet their clinical obligations), as well as creating more efficient sessions for a provider. A frequent finding with this function is that templates have legacy schedule "freezes" for specific visit types that, when found, can be set to "thaw" if not filled for that specific service and be utilized to see other visit types and help to reduce the appointment lag time for both the physician and the department.

The overall impact that the APT concept brings to an organization is one of consistent engagement toward improvement and accountability. The structure is designed to let physician organization leaders define the desired state of the ideal patient experience while delegating the authority to implement operational changes to a focused team that supports practices in reaching these goals. It also allows a clinical practice to focus more on patient care, as they are being supported by experts rather than expecting a staff member or leader to perform the same functions while juggling other duties. The APT model is shown in Appendix I.

The Access Algorithm:

Patient access can be assessed using any number of metrics, though depending upon the entity being evaluated, a finite set of appropriately weighted measurements taken in tandem can leverage the most opportunity with the least amount of effort and disruption to the system. The key to making this model successful is to develop an approach that can be applied to the various clinical departments to allow for comparison, treating each of them as peers of the other. The rationale being that, while the Access Algorithm scores may vary across specialties, the chosen metrics that derive the scores are paramount to determining how accessible any given practice is to their patients. FTI narrowed its preliminary model down to a dozen key metrics, only a fraction of the metrics available, but more than some institutions may find necessary to implement. These metrics were deemed to be most influential and readily attainable. However, every metric has its own scale, and each

needs to be applied across a level playing field to be meaningful and interpretable.

The metrics chosen at Duke to build the initial Access Algorithm are:

- New office visits as a percentage of non-procedural office visits
- Booked time vs. scheduled time
- Appointment lag time for new patients
- Appointment lag time for return patients
- No-show rate
- Cancellation rate
- Bump rate
- Percentage of appointment slots that are super-slotted
- Average session length
- Room Utilization Rate
- Appointment Center Service Level (both abandonment rate and response time)

These twelve metrics were then evaluated using the following:

Weighting: Each of these was assigned a priority (shown as a percentage) to the organization based upon the current goals, or areas of specific focus or other rationale that, while all 12 weights total 100%, the individual weights can be set according to importance.

Normalization: A factor is applied to each metric to normalize it to a [0-1] continuous scale, with a value closest to 1 deemed to be most preferable from an access standpoint. For example, if a standard office session should be 4.0 hours in length, the normalization factor is 0.25, and that factor is then multiplied by the average office session length. If a provider has a 4-hour session, the value of the access metric is 1.00 (0.25 x 4.0); if another provider averages only 3 hours per session when the standard should be 4, that access metric would be 0.75 (0.25 x 3.0).

Inverse Factoring: After a metric has been normalized as described above, it needs to be reversed if lower is better. A common example would be the patient bump rate, whereby the most desirable outcome is 0.0%. In cases such as this, the algorithm uses (1.00 - Normalized Value). Hence, if the patient bump rate were 5%, the value of the metric would become 0.95 (1.00 - 0.05); as the bump rate decreases, the value of the metric increases to more closely near the desired optimal value of 1.00.

Data were obtained from internal resources for the twelve metrics listed, and FTI applied its Access Scorecard for six designated specialty areas as requested by the organization: Cardiology, Gastroenterology, General Surgery, Medical Oncology, Neurology, and Orthopaedics. Overall Access scores ranged from

a low of 64.5% to a high of 73.3%, not unexpected outcomes. A good target Access score in FTI's model would be 85%+, which suggested that all specialties had room for controlled improvements.

FTI's Access Scorecard shows results both numerically in tabular format, as well as graphically for several key metrics (example shown in Appendix II).

Some of the key findings of this specific phase of the assessment uncovered significant results such as:

1. In upwards of 25% of non-arrived visits were "self-inflicted," the combination of provider bumps and cancelled clinic sessions with many of these occurring 4-28 days out from appointment.
2. In certain departments appointment lag times were impacted by legacy rules that same day/next day patients could not be scheduled after 2pm without provider approval. While some departments wish to see records in advance of providing an appointment, this ingrained behavior becomes a missed opportunity to increase volumes.
3. By a factor of 2 or 3, significant variability surfaced in patient throughput for Advanced Practice Providers (APPs) with independent clinics.
4. Some clinic sessions had double the scheduled volume of other sessions (Tuesday AM vs. Friday PM, for example), which leads to congestion and long wait times on busy days and staff downtime on slow days.

Example Department: Orthopaedics

The highest-performing specialty, Orthopaedics, handled many access elements well, and its overall score (73%) reflected that. New patients accounted for 30% of office visits, scheduling efficiency topped 92%, appointment lag time for new patients at 12 days neared the practice-wide standard of 7 days, and bump rates hovered down near 4%. Additionally, the Orthopaedics department utilized its Advanced Practice Providers (PAs and NPs) efficiently to increase access. Still, Orthopaedics' Access Scorecard showed areas of concern for targeted improvements, as the department's score still fell short of the recommended overall score of 85%. The department's super-slotted appointment percentage was 14% and session lengths averaged only 3.22 hours. Its appointment center suffered the highest phone call abandonment rate and wait times of any other area studied. The first two issues could be improved by modest changes to the scheduling templates, while appropriately addressing call transfers, triage-type questions, and other lengthy call types could improve the appointment center metrics considerably.

The department's scorecard result could be improved if, for example: the percentage of super-slotted appointments rose to 30%, average session lengths increased to 3.75 hours, the call center abandonment rate dropped to 3%, and the average wait time to answer fell to 20 seconds. Orthopaedics' new Access score would be 81.6% in this scenario as compared to the

baseline score of 73.3% that it had initially received. With those improvements, more slots would open up decreasing appointment lag times, session efficiency would improve from higher volumes, and other metrics such as cancellation rates might decrease as well from a more patient-friendly environment.

The Access Scorecard, when applied across the organization, highlights leading practice efforts and allows for methodologies to be shared across specialties. This type of internal learning is successful because it is management led and peer-based. By publishing scorecards based on the algorithm, Administration can spur dialogue across department leaders on how to achieve better performance. Lessons learned, shared tools, and other outputs can lead to improved performance that provides its own form of continuing education. This can give physician leaders the details necessary to share knowledge with those who request it and take action within their own departments.

Strategies to Increase Capacity:

FTI also spent considerable time analyzing data from the six departments and PDC-wide scheduling history. This provided the means to isolate trends that formed the initial review of and monetization for suggested changes such as:

1. Moving just 5% of total PDC visits for return patients to APPs would generate 30,000 open slots for MD visits ideally to be used to see new patients. Total potential impact is \$2.8M in net revenues.
2. 120,000 PDC visits were lost to provider-initiated bumps or cancelled clinics 4-28 days out from appointment. Re-capturing 90% of those visits created a \$3.6M net revenue opportunity. Cancellations and bumps less than 4 days out were excluded, as sick and emergency situations do occur and thus could not be determined as a legitimate opportunity.
3. Easing legacy restrictions around appointment requests for same day/next day service could increase total visits by 1.8% (based on the lost or "empty" slots that do not get filled due to this restriction or other reasons). This was valued at \$1.2M in net revenues.

*All net revenue estimates are based on E&M visits and do not include procedures or downstream hospital impact.

*Additional opportunities and strategies were identified when evaluating the operations of the specific departments:

*A re-implementation of the appointment reminder system was recommended as review of practice operations determined a lack of action taken on daily work lists showing cancellations and unconfirmed appointments. This led to many "phantom bookings" and no-shows that could have been avoided, thereby adding capacity for other bookings. Analytics and modeling indicated this could be a \$1.2M PDC-wide opportunity based on a 33% recovery rate for cancellations 1-3 days out.

* Evaluation of appointment lag led to modeling Saturday half-day clinics to improve that metric for certain services. Thoughts

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moved from using this as a means to reschedule those who didn't follow pre-service requirements to dedicating time slots to a specific payer group who could be highly likely to need the service due to time constraints during the week.

*Applying a structured overbooking strategy based upon the historical "scheduling efficiency" for selected services could leverage unused clinical time to its maximum potential. Taking care to not overburden any given provider, setting goals tied to wRVUs, % of total time booked, or other outcomes would help to fill gaps in provider templates.

*Using Epic Cadence capabilities to text patients a reminder SMS message regarding their upcoming appointment. Recent studies indicate that lower income patients have as high or higher utilization of cell/smart phones and could be a means to influence the self-pay and Medicaid populations (which have higher no show rates in general), in addition to all other financial classes/patients whose habits have adapted to react more quickly to texting vs. a traditional phone call.

*Using the Epic priority wait-listing functionality to help develop a "more likely" pool of patients to fill last minute slots. Ideas ranged from having Duke Medicine employees, flexible retirees, or other local businesses be given a priority status in Cadence tied to their proximity to campus or dependability to keep an appointment.

*Multiple Call Center technologies were being utilized within the PRMO organization to process daily work. Recommendations were made to evaluate the move to a comprehensive solution that provides the same functionalities while also helping to "predict" staffing requirements based on time of day / day of week, along with call service quality.

Conclusion:

Through the efforts outlined above, a range of six (6) to eighteen (18) percent increase in appointment capacity was attainable for the six identified departments that were part of the assessment. At the PDC practice-wide level, the call to action for standards, dedicated staffing, and more accountability to meet the Duke Access Standards could create up to an \$8.6M recurring annualized net revenue opportunity.

The Duke Leadership team of physicians and administrators continue to pursue making these changes while also implementing Epic, a difficult task. Their commitment and partnership to change their organization to meet the challenges facing all health systems to "grow" their business through more tightly focused and managed Access with existing operations is focused and clear.

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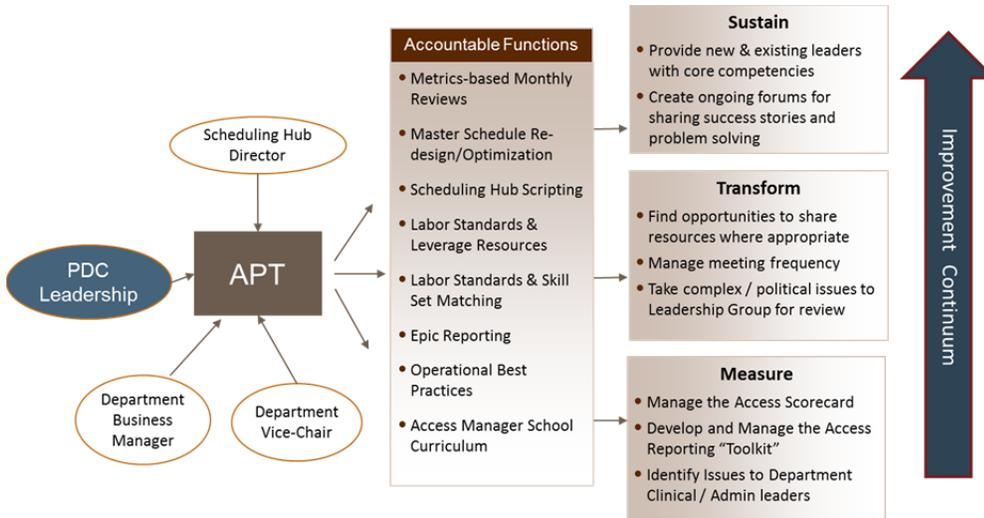
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Additional contributions by Brent Bizwell of Access Advisors

Appendix I

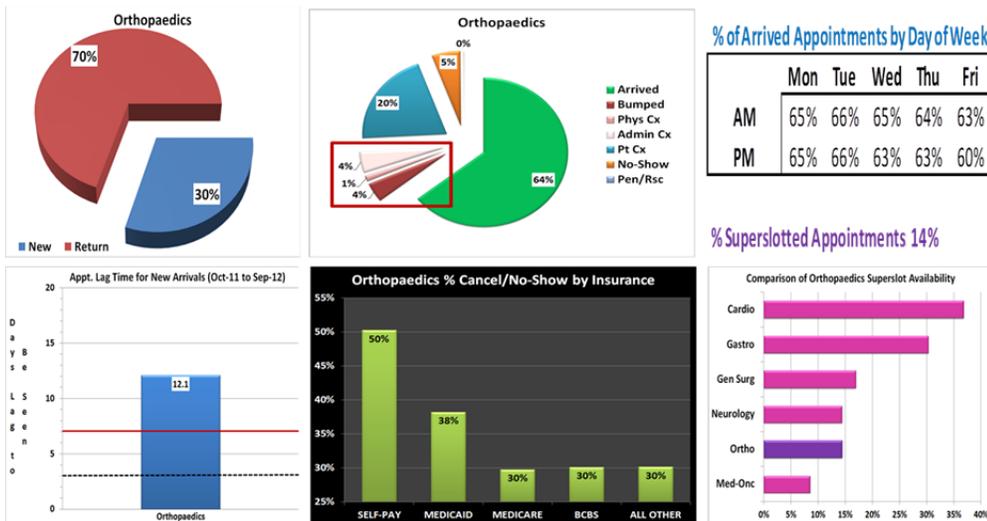
Illustration of Proposed APT Access Management Model and Accountable Functions

How APT will Support Each Department



Appendix II

Example of Sample Scorecard for Duke Orthopaedics



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