



Cultivating change in surgical services to promote process efficiencies

Philips Healthcare Transformation Services collaborates with Nash UNC Health Care to enable performance improvement

Who/where

Nash UNC Health Care – Nash General Hospital and Nash Day Hospital, Rocky Mount, NC.

Challenge

Drive improvement with case duration accuracies – while continuing to drive performance improvement with existing projects. Optimize data reporting process for key performance indicators (KPIs).

Solution

Philips Healthcare Transformation Services partnered with UNC leadership to develop processes and strategies to enhance surgical services efficiencies. Multiple data sources were analyzed to assess current state performance, understand the flow of the department, and define the current baseline for analysis to support the creation of actionable recommendations.

Nash UNC Health Care, part of the non-profit UNC Health Care system, is a 403-bed medical center located in Rocky Mount, North Carolina. Nash General Hospital is an all-private-room inpatient care center with eight operating rooms, while Nash Day Hospital is an out-patient surgery center with five operating rooms. Both facilities were struggling with surgical services volumes after several years of service line market changes and a decline in physician referrals. Their immediate goal was to improve processes and return to efficient performance.

Nash UNC Health Care turned to Philips to achieve an understanding of current operational issues and develop processes and strategies to enhance surgical services efficiencies for a positive impact on patient throughput across the surgical continuum.

Results*

Quantitative improvements have been seen in case duration accuracy, first case on-time starts, room turnover time, and overall avoidable cancellations.



The challenge

Surgical Services at Nash General and Nash Day suffered from years of operational ‘churn’. Organizational changes and physician retirement led to a loss of intellectual capital. Surgical Services had difficulty aligning their business with remaining staff. There was an obvious need to become more efficient and fiscally sound by improving room utilization, work processes, case scheduling, patient throughput, customization of data management, and staffing utilization.



Assessment methodology

A seasoned team of Philips consultants engaged in an initial assessment with staff and leadership to determine the current state of operations. Multiple data sources were analyzed to assess current state performance, understand department flow, and define the current baseline for analysis to support the creation of actionable recommendations. Data sources used included staff interviews, scheduled case durations, block schedule, on-site observations, and industry best practices.

Guided by a three-pronged assessment methodology, the team focused on the goals of continuing the high quality of care at Nash UNC Health Care while streamlining workflow, improving patient, staff and physician satisfaction, and leveraging market growth in the outpatient area.

Recommendations

A three-phase approach was proposed to provide comprehensive ongoing leadership and change management coaching:

- **Phase One:** Focus on data management
- **Phase Two:** Focus on operational performance
- **Phase Three:** Focus on program management

The intent was to continuously improve surgical services performance, effectively deploy change, achieve annual and longer-term performance targets, and innovate for expected future growth. Partnering with Philips Healthcare Transformation Services toward a common goal would demonstrate a shared commitment to success.

Full staff participation

Following the assessment period, administrators at Nash UNC Health Care decided to initially partner with Philips for Phase One – a 12 week Surgical Services performance improvement project and its data management concentration.

Phase One deliverable included:

- Redesign Epic dashboard with KPIs defined, and drive improvement to reduce room turnover time (TOT), improve first case on-time starts (FCOTS), and reduce day of surgery (DOS) cancellation and/or delays
- Resolve data integrity issues within data mapping
- Optimize doctor preference cards to ensure proper resource allocation and case and procedure durations
 - Maximize scheduling efficiency and improve scheduling processes resulting in increased surgical volume capacity
- Map data fields for enhanced inventory management and charge capture
- Propose future state staffing models to align with key operational improvements
 - Include identifying volume points to flex staff down, add additional position, and run a late room – analyzing breakeven analysis for decision points as related to case volume

To assure staff involvement and ‘buy-in’, performance improvement activities were carried out by four separate workgroups: FCOTS, room TOT, cancellations and delays, and doctor preference card redesign.



People



Process



Technology

Improve on-time starts: focus on first case and to follow cases.

Reduce turnover times: focus on room and surgeon.

Reduce avoidable delays and cancellations.

Review and update DPCs for appropriate case preparation.

The Surgical Services director at Nash UNC Health Care eased the staff into the performance improvement process by helping to arrange the workgroups. She tasked them with building current states, figuring out the problems, and coming up with counter-measures to build a solid future state. Facilitated by a Philips subject matter expert, each workgroup created new policy statements and defined how changes would potentially impact staff.

Knowing how to drive toward best practices was a key take-away for all the staff. An understanding of how to strive for, achieve and sustain each KPI (FCOTS,

TOT, etc.) put them on track for continued success. By giving them the tools they need, they can measure performance improvement and sustain ongoing change management of same.

Additional customization within the electronic system, validation of data, and streamlined future state processes sustains the drive toward improvements with KPIs. Adherence to KPIs keep the surgeons happy and the day flowing smoothly.

Workgroups

On-time start

- Built current state with barriers
- Created future state with removal of avoidable barriers
- Revisited on-time starts by role and time of day for both General and Day
- Reviewed considerations for finishing cases early or late
- Identified benefits and KPIs for on-time starts

Turnover time

- Built current state with barriers
- Created future state with removal of avoidable barriers
- Identified critical success factors by role for efficient turnover
- Drafted parallel processing workflow to highlight parallel processes
- Identified barriers to efficient turnover
- Drafted a turnover policy
- Identified benefits and KPIs for turnover time

Cancellations and delays

- Built current state workflow with barriers
- Created future state with removal of avoidable barriers
- Built the future state case cancellation documentation process by role for scheduler, OR RN, OR charge RN, and preop RN
- Created future state documentation of cancellations by role
- Determined solutions based on avoidable case cancellation reasons
- Identified benefits and KPIs for case cancellations and delays

Doctor preference cards

- Drafted DPC maintenance policy
- Implemented DPC biannual review
- Created checklist for standardized review of DPC
- Assigned all DPC to a service line lead for management
- Implemented card linking functionality and global update features within Epic
- Identified benefits and KPIs for case cancellations and delays

Results*

Design and implementation efforts were focused on efficient patient flow through the surgical continuum. Greater transparencies were created regarding data definitions and calculations, surgical scheduling, and doctor preference card maintenance within the electronic system. A typical Philips Healthcare Transformation Services performance improvement engagement takes

approximately 36 weeks – long enough to demonstrate that a positive outcome is sustainable. Due to the truncated timeframe (12 weeks) for Nash UNC Health Care, results are shown below for the entire time period and for the ‘best week’ of data. Highlighting results for the best week allows staff to dig deeper into that week to determine the influencing factors and apply that learning moving forward.

Surgical Services improvements

	Nash General Hospital		Nash Day Hospital	
	12 week PI project duration	PI project best week	12 week PI project duration	PI project best week
Case duration accuracy**	↑ Improved by 13%	↑ Improved by 39%	↑ Improved by 8%	↑ Improved by 21%
First case on-time starts	↑ Improved by 18%	↑ Improved by 35%	↑ Improved by 16%	↑ Improved by 45%
Room turnover time	↓ Decreased by 3%	↓ Decreased by 16%	— Remained constant	↓ Decreased by 14%
Avoidable cancellations	↓ Decreased by 34%	↓ Decreased by 83%	↓ Decreased by 26%	↓ Decreased by 68%

With the new Surgical Services director in place, Nash UNC Health Care is hiring more staff and more surgeons who in turn are helping to increase case volume. Philips Healthcare Transformation Services stepped in when needed to provide critical momentum and then stepped

back to allow Surgical Services staff to continue to grow and improve. At the six-month point, Philips and Nash UNC Health Care will regroup to determine the plan to proceed to phases two and three.

Learn more

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