CASE STUDY
Strategic Staffing Management for Respiratory Care at Nemours Children's Health

How an AARC APEX-designated hospital reduced waste and improved patient care using validated value efficiency metrics to appropriately staff for respiratory care.

Results

Once implemented, the Safe and Effective Staffing methodology had an overwhelmingly positive impact on the respiratory care unit, care teams, and patients. By following the AARC’S Safe and Effective Staffing Guidelines, Nemours Children’s experienced these results:

- Manual time recording work by RTs: **Reduced by ~10 hours per day**
  - Allowing the unit to put the time savings back into patient care
- Empowers RT leader with confidence that staffing is appropriate to provide the right level of care based on patient acuity
- **Reduced variation and reduced waste** - gained ability to accurately predict the number of respiratory therapists needed for a shift without human error
- Increased RT autonomy and ability to operate as a critical team member
- Increased staff satisfaction and reduced staff turnover
- Increased collaboration with nursing staff and nursing adoption of the RT contingency planning
- Created environment with **Senior leadership recognition of the value of RTs**
- **RVU metrics trusted by Executive leadership** as justification for approval to hire additional FTEs

In the bigger picture of value-based care and reimbursement, Burr’s goal is to establish a comprehensive strategic staffing methodology to operationalize the concept of Value Efficiency, where validated metrics of both activity efficiency and activity effectiveness are considered to define the number and type of caregivers required for safe and appropriate patient care. Nemours is currently implementing Value Efficiency in protocol use and is taking steps to include more integration of value efficiency models to drive care.
Nemours Children's Hospital, Delaware implemented the AARC Safe and Effective Staffing Guidelines (SESG) to accurately manage daily staffing needs and resource reallocation - ensuring adequate numbers of RTs to meet variation in patient demand and volume across units.

### Challenges and Objectives

Katlyn Burr, Director of Respiratory Care and Sleep Medicine at Nemours Children's, recognized the immediate need to eliminate inefficient manual data entry and to increase accuracy in assessing labor demand and staffing needs across care teams and departments.

She knew that validated time standards for procedures would be more dependable and accurate than other measures of productivity, such as patient days/discharges, charges/cpt codes or procedure counts. Time standards can be specific and detailed to the minute. They can account for varying procedures and both billable and unbillable services.

Burr intended to use accurate time standards to flex staff required to meet workloads that might vary by shift and to address labor costs while safeguarding patient safety.

### Validated Time Standards Are a Common Denominator for RT Procedures in Any Area of the Hospital

Burr looked to the AARC Safe and Effective Staffing Guidelines, what she referred to as “the gold standard in identifying procedures associated with the provision of respiratory services and the time required to perform each of those services.”

To create the current Guidelines, AARC had re-validated time standards in 2020, working with 52 different organizations for thousands of neonatal, pediatric, and adult care time observations. The SESG time standards are based on Relative Value Units (RVU) with 1 RVU equal to 1 minute. The Nemours Respiratory Care unit used Workload Units (WLU) with 1 WLU equal to 15 minutes. Nemours used a simple conversion to create procedural time standards by RVU/WLU in their EMR. A daily count is done to project for the oncoming shift by running a report for the count in the EMR. The count is entered, and staffing is adjusted accordingly.

To capture all data points needed for daily analysis and strategic staffing the EMR reports need to include:

- A prospective workload report for all respiratory services for the oncoming shift
- Retrospective reports for data analysis and record keeping

### Prioritization and Surge Planning

Burr first adopted a component of the SESG that addressed prioritization and understaffing situations. In collaboration with the Medical Director, Respiratory Care Leaders, and Senior/Executive Leaders she implemented a standardized policy for emergencies or increased demand/volume within their department using Green, Yellow, and Red:

- **GREEN**: RTs on staff for the shift is within 80-100% of projected WLUs/FTE.
- **YELLOW**: RTs on staff for the shift is between 61-79% of projected WLUs/FTE
- **RED**: RTs on staff for the shift is at or below 60% of projected WLUs/FTE

Each level of response defines the level of care that will be provided to patients. Green indicates care should be provided as ordered and documented in department policies; Yellow indicates RT staff will be diverted to critical care areas; Red indicates the Respiratory Care Medical Director will work with medical teams to adjust orders to facilitate the needs of highest priority patients.

At Nemours, the prioritization and surge planning is trusted and strongly supported by the Respiratory Care Medical Director who communicates the color status provided by Nemours Respiratory Care leaders (Flow Supervisors, Managers, and Charge Therapists) to issue Respiratory Therapy Staffing Alerts to affected departments as needed. The response guidelines have been so effective in planning for staffing levels that the nursing department is considering the model to define staffing levels and adjust care teams in their departments.

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**To Nemours Affected Colleagues**

**Alert: Respiratory Therapist Staffing**

Staffing respiratory therapists for day shift 10/11/22, is critically short, and designated as a Yellow crisis staffing mode. There may be fewer than the expected number of respiratory therapists in your area, and they will have a higher workload than expected.

**Please:**

- Support the staff by using protocols for all appropriate patients.
- Assess the patient response to all ordered treatments and discontinue orders as soon as medically appropriate.

Respiratory therapists have been provided with a clear prioritization matrix which means that some routine, non-emergent tasks may be deferred. Specifically, attendance at multidisciplinary patient care rounds may be limited and routine checks of stable patients will be once every 6 hours rather than every 4 hours. Guidelines for prioritization can be found at: [https://nemours-policytech.com/dotNet/documents/?docid=](https://nemours-policytech.com/dotNet/documents/?docid=)

**ALERT**

Please distribute this information as appropriate to associates in your areas.

Thanks you.

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**Utilizing the SESG methodology and establishing time standards in the EMR eliminated manual data entry from individual RTs by ~10 hours per day.**

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