

**Addressing the Gap: Early Recognition of Patient Deterioration**

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**Disclosure:**

- I, Ai Jin Lee, have no financial or nonfinancial disclosures.



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**Objectives:**

- At the end of this presentation, participants will be able to:
  - Identify an initiative to improve early recognition of a deteriorating patient within a specific nursing units
  - Discuss targeted education program (ALERT™ program)

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### Cedars-Sinai Medical Center:

- 886 licensed beds academia health care center
- More than 50,000 admissions per year
- More than 90,000 emergency visits per year
- More than 14,500 full-time employees
- More than 2,100 physicians on medical staff
- More than 3,300 nurses

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### Rapid Response Team:

- The Rapid Response Team (RRT) formed in 2005 to address failure to rescue events.
- RRT First Responders: Critical Care Physician, Crisis Nurse, Respiratory Therapist, and EKG Technician
- In 2014, the RRT transformed into a Crisis Nurse led program.
  - The Critical Care Physician is not a first responder.
- In 2016, two Clinical Nurse Specialists (CNS) collaborated to review the RRT data and develop a focused educational program.

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### Simulation Center:



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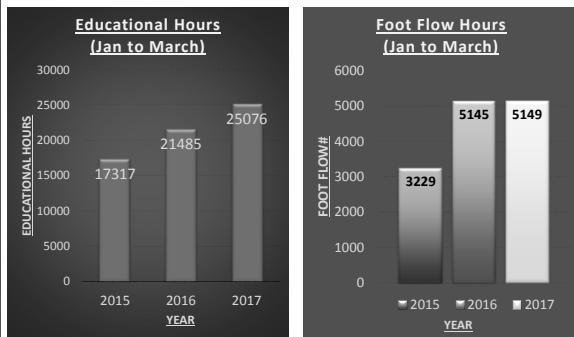
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### Simulation Center:



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### Methods:

- A retrospective data analysis was performed focusing on RRT calls and reasons.
  - Assessed RRT data from January to March 2016 (n=345)
  - 33% of the RRT activations were respiratory related, followed by hypotension and arrhythmia.
- Three medical telemetry/progressive care units were found to be the highest utilizers for the RRT, accounting for 27% of all RRT calls.
- A targeted educational program was implemented in June 2016 with the ALERT™ program focusing on early recognition of patient deterioration.
- RRT rates and reasons were compared between FY 2016 and 2017.

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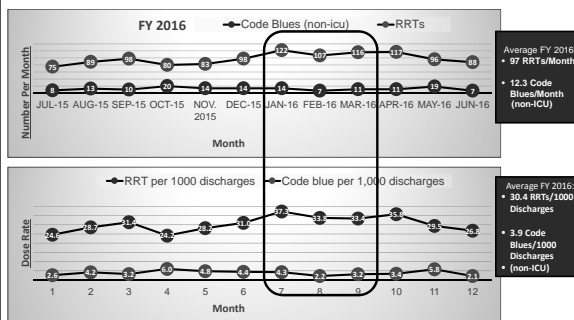
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### FY 2016 RRT and Code Blue Trends:



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### Implementation of ALERT™:

- Obtain licensing and accreditation from ALERT™ headquarter
- Training of ALERT™ Instructors
- Review of RRT and code blue data
- Collaborate with Associate Directors of targeted units

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### Outcomes:

- The ALERT™ program was offered to 250 staff from June 2016 to June 2017, with 30% of the attendees coming from the three high utilizer units.
- FY17 RRT rate increased slightly to 31.85/1,000 discharges from 30.38 in FY16.
- From January to March 2017, 23% of the RRT activations were respiratory related.
- In the same time period, the three high utilizer units accounted for 35% of the RRT calls.

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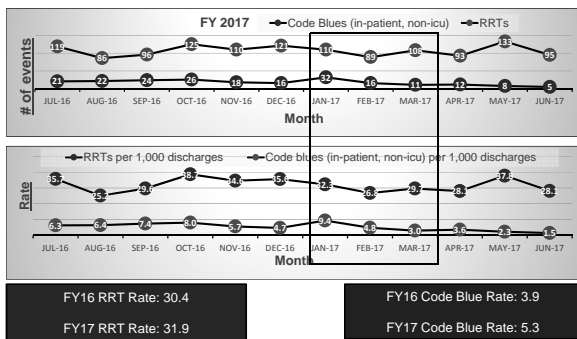
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### FY 2017 RRT & Code Blue Trends:



FY16 RRT Rate: 30.4

FY17 RRT Rate: 31.9

FY16 Code Blue Rate: 3.9

FY17 Code Blue Rate: 5.3

Discharge Data from Clinical Efficiency Report

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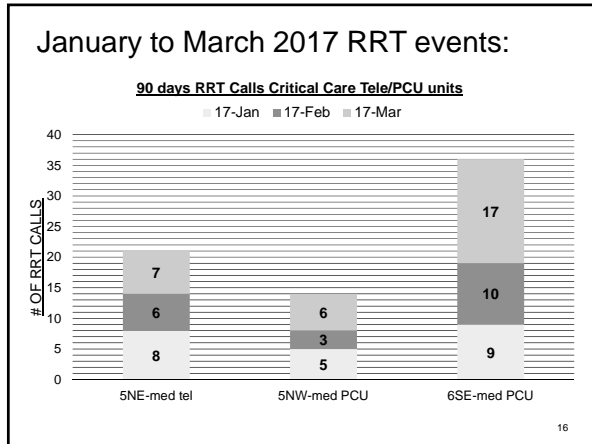
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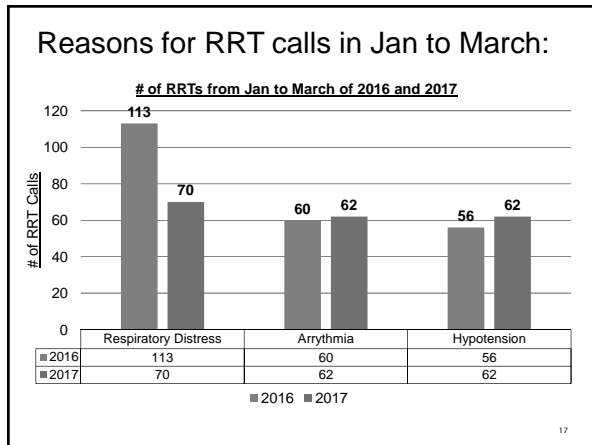
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### Summary:

- A gap analysis identified respiratory distress as primary reason for RRT calls.
- Targeted education program made slight improvement in decreasing respiratory-related RRT calls.
- The ALERT™ program was recently added to the new graduate nurse residency also.

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**Acknowledgement(s):**

- Simulation Center staff
- Crisis Resource nursing staff
- ALERT™ Instructors

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**Reference(s):**

- Health Research and Educational Trust (2016). 2016 FTR top ten checklist. Retrieved from: [http://www.hret-hen.org/topics/ftr/HRETHEN\\_Checklist\\_FTR.pdf](http://www.hret-hen.org/topics/ftr/HRETHEN_Checklist_FTR.pdf)
- Scherr, K., Wilson, D., Wagner, J., & Haughian, M. (2012) Evaluating a new rapid response team. AACN Advanced Critical Care, 23(2), 32-42.
- Peberdy, M., Cretikos, M., Abella, B., DeVita, M., Goldhill, D., Kloeck... Young, L. (2007) Recommended Guidelines for Monitoring, Reporting, and Conducting Research on Medical Emergency Team, Outreach, and Rapid Response Systems: An Utstein-Style Scientific Statement. Circulation, 116, 2481-2500.
- Portsmouth Hospital NHS. ALERT HQ Home. <http://www.porthosp.nhs.uk/departments/alert/alert.htm>. Accessed on Feb. 15, 2018.

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