

## Use of an Intensity Tool to Balance ICU Workload

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## Background

- ICU RNs expressed persistent dissatisfaction with the workload of assignments in the ICU
- Nov. 2010- ICU staff were surveyed to quantify concerns
- 86.4% (74 responses/approx 200 nurses) reported having had groups that were “too heavy” or “they did not have enough help”
- Our sickest patients are not always the ones that require the most work
- Intervention planned to best use available resources
- A tool had been successful on the Med/Surg units in balancing assignment workload

## Goals

- To develop transparency in staffing decision making and allocation of resources
- Attempt to capture the work that takes up nursing time
- We wanted a tool that would work for our unique situation

First draft of Intensity Tool: Front

	0 points	5 points	10 points	Room
1. Respiratory	Supplemental O2 Stable BIPAP/CPAP	Stable Vent Weaning vent Stable with treatment	Complex vent support Unstable despite treatment	
2. Circulatory	Stable	Stable with treatment	Unstable with treatment	
3. CNS	A&Ox4 neuro checks q 2-4hrs	Neuro checks q 1 hr confused/delirious, but safe seizure watch Fall risk Cannings	Neuro check > 1hr uncontrolled pain agitated, hallucinations Suicide watch Active seizures Ventricular drain	
4. Monitoring (BP, HR, sat, UOP, pain)	Q 1-2 hrs	>1 hour PA catheter	>4 times/hour Minnesota tube	
5. Personal care & Mobilization	Personal hygiene, self Mobilization with 1 assist	Personal hygiene, 1 assist Mobilization with 2 assist	Personal hygiene, > 1 person assist Mobilization with >2 assist	
6. Dressing/Wound Care	Dressing changes 1-2x/shift	Dressing changes 3x/shift	Dressing changes >3x/shift Complex wound care (wound vac or requiring >1 staff)	
7. Care of Families	Standard	Intermediate	Complex	
8. Traveling/Procedures	None	< 1hr (ex. Routine CT, central line placement)	>1 hr (ex. BR, MRI, Complex CT)	
9. Precautions	none	1 isolation	Airborne isolation	
Devices (SSE)	none	Stable on settings	Unstable on settings	
Admits/Transfer	No admit spot No transfer	Admit potential Transfer orders expected	Planned transfer with planned admit	
Discretionary (5 points per item)		Family conference Frequent call light Frequent suction Frequent labs AND difficult access Sheath pulling Extreme anxiety		

## Phase 1- Validation

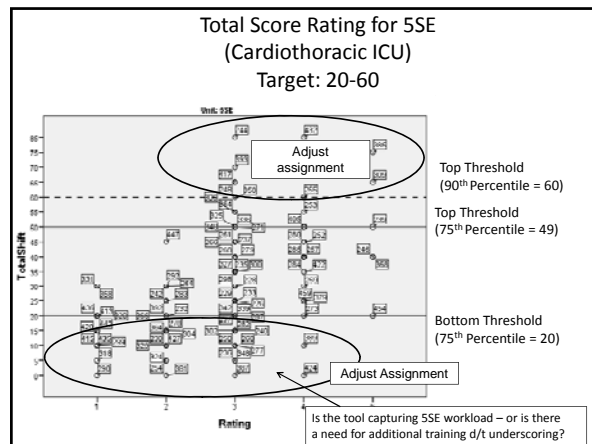
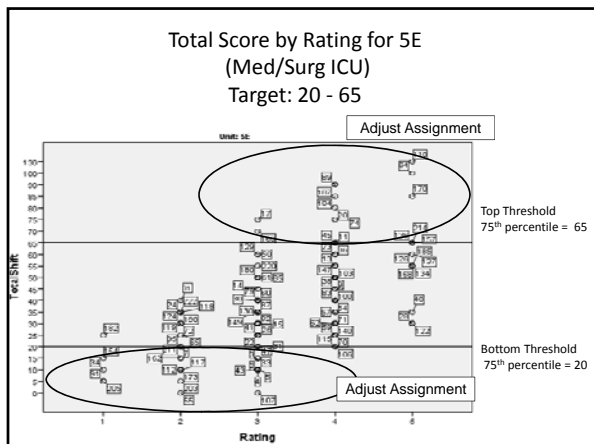
- Staff were educated on the process at staff education days, charge nurse meetings, and 1:1 education
- Nurses used the tool to score their patient assignment, **based on the report they received**
- The nurse then rated their day on a 1-5 scale of how busy they were **at the end of the shift**
- 150 tools were collected from each ICU over 3 weeks (5/18-6/3)

Back of sheet:

Rate your day:    1            2            3            4            5  
(At the end of your shift)

1- Very Light Workload  
2- Light Workload  
3- Steady Workload  
4- Heavy Workload- Most tasks completed  
5- Very Heavy Workload- Tasks left uncompleted

Comments/ Suggestions



- ## Phase 2- Implementation
- Feedback from nurses sought to improve the capture of clinical situations and the tool was updated
  - Nurses **predicted** the score for the **next** shift and rated their own day
  - Charge nurse sheets updated to accommodate scores.
  - Phase 2 rollout 9/2011 to both units
  - 150 tools collected from each unit (9/10-10/3)

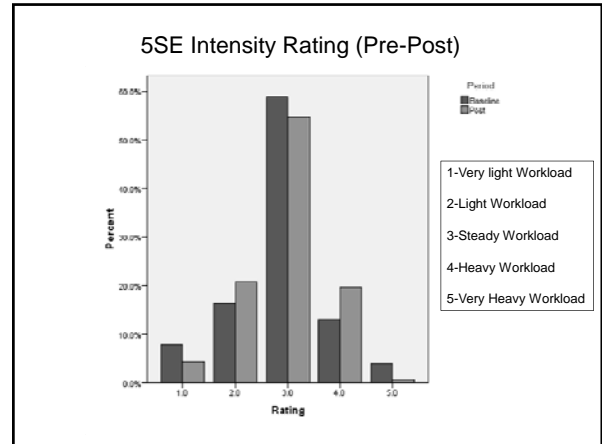
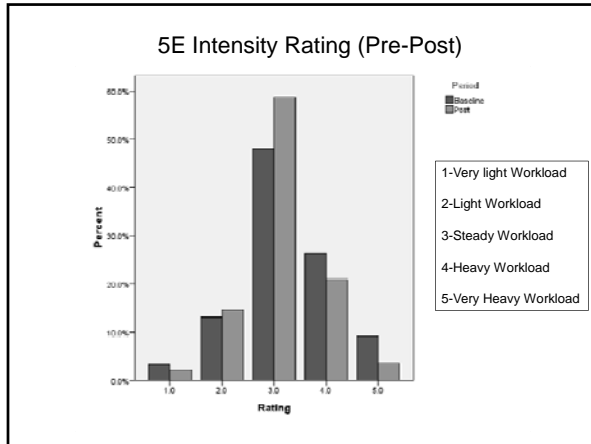
### Current version of Intensity Tool

	0 points Standard	5 points Moderate	10 points Complex
<b>Respiratory</b>	Supplemental O2 Stable with treatment	Stable weaning Vent BiPAP/CPAP	Complex vent support Unstable with treatment <b>NEW</b> BiPAP Q1 hr suctioning
<b>CV</b>	Stable	Stable w/ treatment No/minimal titration of drips	Unstable w/ treatment Active bleeding Require multiple fluid bolus Active titration of drips
<b>CNS</b>	ADOCs 4 CNS check Q 2-4 hrs	Q1hr CNS checks Confused, but safe	Unassisted pain Agitated/hallucinating Active seizures Ventricul/Lumbar Drain Freq. reposition/fall risk
<b>Monitoring:</b> V/S, UOP, Pain, Resp, Chemistries	Q1-2 hr	Q1 hr (Neuro or Flap check) PR catheter	Q1 hr (due to BP, sat, pain, reposition, etc)
<b>Personal Care:</b> Mobilization/Turning	Personal Care: 1 assist Mobilization: 1 assist	Personal Care: 1 Assist Mobilization: 2 assist	Personal Care: 2 Assist Mobilization: >2 Assist
<b>Dressing, Drains, &amp; Wounds</b>	Dressing chg Q shift	Chest tubes: non-mobile pt Wound care time < 1 hr. # Drains < 4.	Chest tubes: mobilizing pt Complete wound care > 1 hr total care # Drains > 4
<b>Care of Family</b>	Standard	Intermediate	Complex
<b>Traveling &amp; Procedures</b>	None	Expected < 1 hr (ex. Inpt CT, Line placed)	Expected > 1hr (ex. MRI, etc. Complex CT)
<b>Preventions</b>	None	Isolation (Contact, Droplet)	None
<b>Devices (S&amp;S)</b>	None	Stable on Settings	Requires setting adjustment <b>New device &lt; 2hrs post op</b>
<b>Admits &amp; Transfers</b>	N/A	Expect Transfer orders	Planned transfer Discharge Expected Admit
<b>Observatory (5 pt per item)</b>	<ul style="list-style-type: none"> <li>Family conference</li> <li>Frequent call light</li> <li>Frequent stool/urine/vomit</li> <li>Frequent lab &amp; diff/cult access</li> </ul>	<ul style="list-style-type: none"> <li>Shifts pending</li> <li>Extreme Anxiety</li> <li>First OOB/ambulation</li> <li>Renal/diylt ordered (DDPO)</li> </ul>	

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### Full ICU Charge Nurse board



### Phase 2 results

- In our Phase 2 collection of the tools, compliance was not reliable.
  - Data did not offer an adequate representation of the situation to determine if the intervention had had an effect
- 4 months spent improving compliance
  - Monthly audits with feedback to charge nurses and staff
  - Continued education at staff meetings and 1:1 feedback
  - Staff have identified message on spectra link phone as a reminder
  - 5 E: Oct: 56% to Dec. 73% and 5 SE: 43% to 60%

### Challenges

- Compliance
  - Nurses asked “to do one more thing.”
  - Remembering to fill out scoring sheet
- Concern over accuracy of scores
  - Scores need to be looking ahead
  - Tool is subjective
- Charge Nurse buy-in

### Future

- Request for Tool to be a task in the electronic medical record
- We want to achieve 75+% compliance then resurvey to see if intervention has had any impact on the perception of workload
  - *Is the intervention value added?*
- How else can we use this information for other purposes
  - *Is there any correlation with high workload period and outcomes, pressure ulcers, central line infections, etc.?*

### Questions?

Contact Amy Haverland for further questions or information at [havrilla@uw.edu](mailto:havrilla@uw.edu)