

Improving ICU Liberation Bundle Documentation

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Thank you to Mary Kay Bader, Dr. Marie Nolan, Dr. Christina Jacoby, Dr. Trisha Saul, Dr. Omeid Heidari, Dr. Jennifer Cord, and the professionals working in the ICUs at Providence Mission Hospital for their support and guidance during this project.

Background & Purpose

Critical illness and admission to the intensive care unit (ICU) can have life altering consequences (Desai, Law, & Needham, 2011).

The ICU Liberation Bundle is adapted from guidelines for critical care management and shown to reduce ICU Harm (Devlin et al, 2018; Posa, Singh, & Stollings, 2020; Pun et al., 2019).

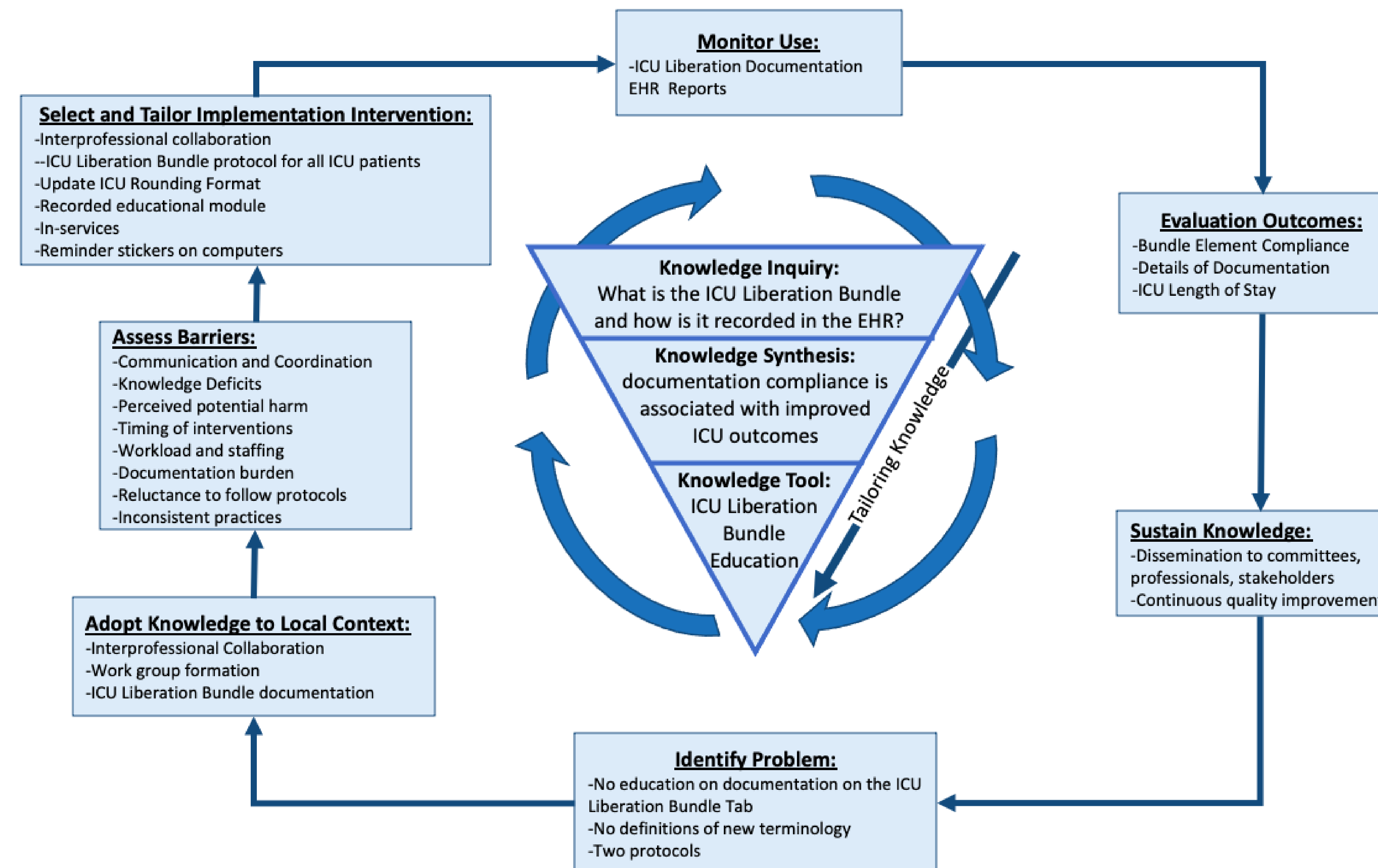
The seven bundle elements are pain, spontaneous awakening trials/ spontaneous breathing trials, sedation, delirium, early mobility, family engagement, and good sleep. (Barnes-Daly, Phillips, & Ely, 2017)

Although there is a section to document on the ICU Liberation Bundle elements, the ICU professionals did not receive education on documentation requirements.

The purpose of the quality improvement project was to collaborate with the intensive care unit (ICU) professionals to develop an ICU Liberation Bundle protocol, and education to improve documentation and reduce ICU length of stay (LOS).

Methods

Pre-Post Intervention Quality Improvement



Results

- 54 professionals (18% response rate) completed the education
- All professional groups were offered individualized education
- There was no statistically significant difference in the composition of the reports during the pre-and post-intervention data

Discussion & Practice Implications

- Improvements in a few elements is consistent with other projects
- Changes in documentation practices noted and show more professionals documenting in the ICU Liberation Bundle section
- Using multiple strategies helped improve compliance and support changes in documentation practices
- The ICU Liberation Bundle documentation report provides sufficient data to monitor and analyze in quality improvement interventions

Aim #1: Documentation Compliance

ICU Liberation Elements	Oct 2021	Dec 2021	p value
Non ventilated patient bundle compliance, N	68	68	
Pain, n (%)	25 (36.8%)	26 (38.2%)	.859
Sedation, n (%)	52 (76.5%)	48 (70.6%)	.437
Delirium, n (%)	36 (52.9%)	35 (51.5%)	.864
Mobility, n (%)	28 (41.2%)	31 (45.6%)	.604
Family, n (%)	18 (26.5%)	42 (61.8%)	<.001
Ventilated Patient Bundle Compliance, N	49	36	
Pain, n (%)	33 (67.3%)	25 (69.4%)	.837
SAT, n (%)	8 (16.3%)	13 (35.1%)	.037
SBT, n (%)	18 (36.7%)	14 (38.9%)	.839
Sedation, n (%)	43 (87.8%)	28 (77.8%)	.220
Delirium, n (%)	20 (40.8%)	11 (30.6%)	.332
Mobility, n (%)	19 (38.8%)	17 (47.2%)	.436
Family, n (%)	32 (65.3%)	31 (86.1%)	.030
Total elements, non ventilated patients, N	68	68	
Mean (SD)	2.34 (1.25)	2.68 (1.34)	.133
Median (IQR)	2 (1-3)	3 (2-3)	
Total elements, ventilated patients, N	49	36	
Mean (SD)	3.53 (1.47)	3.86 (1.61)	.447
Median (IQR)	3 (2.5-5)	4 (2.25-5)	

Aim #2: Documentation Practices

Elements Details	Oct 2021	Dec 2021	p value
SAT documentation, N	12	32	.281
No sedation Needed, n (%)	7 (58%)	24 (75%)	
Sedation Needed, n (%)	5 (42%)	8 (25%)	
SBT Documentation, N	21	33	.011
No ventilation needed, n (%)	6 (29%)	20 (61%)	
Ventilator needed, n (%)	17 (71%)	13 (39%)	
Delirium documentation, N	56	46	.740
Delirium absent, n (%)	41 (73%)	35 (76%)	
Delirium present, n (%)	15 (27%)	11 (24%)	
Mobility documentation, N	47	47	.018
In bed activity, n (%)	43 (91%)	34 (72%)	
Out of bed activity, n (%)	2 (4.5%)	7 (15%)	
Ambulation, n (%)	2 (4.5%)	6 (13%)	

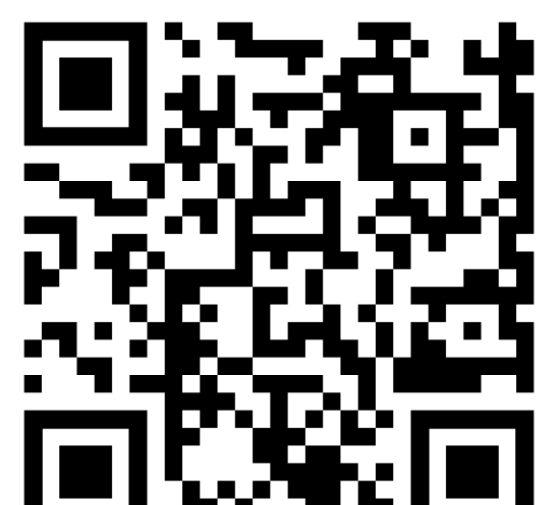
Aim #3: Length of Stay

Length of Stay (LOS)	Oct 2021	Dec 2021
SICU		
Stays, n	150	133
LOS, mean	3.43	3.61

Additional Info



Educational Video



Project Video



Project References