Cloud-based Implementation of New Frontline Clinical Workflows

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Background

- New practices are challenging to implement
  - Staff are already overwhelmed and struggle to maintain consistency
- Pediatric inpatient setting- Pediatric Intensive Care Unit (PICU)
  - No standard for sedation and analgesia for intubated patients
  - Clinical approaches varied significantly
  - High-cost narcotics (e.g., Fentanyl) could be replaced by low-cost morphine for a significant portion of intubated patients
  - RT’s lacked sufficient awareness of
- Adult outpatient setting- Tri-City Health Center
  - Key population health measures: colorectal cancer (CRC) screening and opioid safety
  - Lack of clear practice standards
- Cloud-based just-in-time training solution
  - Elemeno Health, Oakland; a UCSF-backed innovation
  - Access best practice guidelines, up-to-date checklists, and how-to videos from any device
  - No patient data

Project Goals

PICU
- Introduce standard approach to sedation and analgesia for intubated patients
- Tri-City Health Center
- Increase Colorectal Cancer Screening for clinic population
- Improve Opioid Safety for patients with chronic opioid use

Future Directions

- PICU expansion with content based on leadership and frontline nursing needs
- Ongoing tracking of CRC screening, opioid contract, and Narcan prescription volumes at FQHC
- Roll-out of Hepatitis C screening and treatment guidelines
- Adoption at UCSF Benioff Children’s Hospital Oakland to standardize workflows

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Project Plan and Interventions

Critical Care Comfort Algorithm (CALM)

- UCSF Pediatric Critical Care Comfort Algorithm (CALM)
- Self-assessment (bottom-up)
- Charge RN audits (top-down)

Colorectal Cancer Screening

- Complex guidelines
- Standardized workflow
- Real-time actionable and trackable decision guide
- Interprofessional gamified roll-out

Opioid Safety

- Multiple sources
- Standardized workflow
- Real-time actionable and trackable decision guide
- Interprofessional gamified roll-out

Project Evaluation and Impact

Critical Care Comfort Algorithm (CALM)

- RNs are able to self-assess and self-learn CALM guidelines
- Charge RNs are able to perform audits and track by shift
- Example checklist stats: 107 checklists completed in the last 14 days 12% intubated and ventilated (N=12/94) 83% of patients on CALM protocol (N=10/12)

Colorectal Cancer Screening

- Evaluation
  - Empowered MAs to perform to “Top of License” and off-load Providers
  - Providers now have time to discuss details and benefits of CRC screening with patients
- Impact
  - 3-week gamified engagement: 2,107 checklists completed 74% of MAs engaged (N=80) 80% of Providers engaged (N=56) >70% increase in CRC screenings (FIT or colonoscopy)

Opioid Safety

- Evaluation
  - Trained and empowered MAs to actively participate in opioid safety
  - Providers now have time during the visit to discuss contracts and weaning with patients
- Impact
  - Opioid contract renewals increased year-over-year from <10/month to 101/month
  - Narcan prescriptions increased from <10/month to 27/month