E.D. RESOURCE & DEMAND MATCHING

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Emergency Department Resource & Demand Challenges

• Staggered Staffing Redesign

• Pneumonia (C.A.P.) Identification Protocol

• Multiple Use Space Solutions
Staggered Staffing Redesign

- Problems
  - Staffing pattern does not match patient census pattern
  - Acute drop off of staff at 2400 without matching decrease in patient census
  - Under utilization of staff from 0400-1000 & overwhelming patient to nurse ratio from 1400-0200
  - Shift versus shift conflict
  - Ineffective staff interactions
Staffing Redesign Challenges

- Normal staff resistance to change
- Potential loss of differential $$ with time changes
- Increased complexity of monthly schedule development
- Assignment revisions
Staff Adjustments & Agreements

- No “imposed / forced” starting time changes
- HR support of shift differential changes
- CNIV’s responsible for matching staff to new pattern
- New hires not guaranteed starting time
- Assignment re-allocations determined by CNIV’s
New RN Staffing Pattern

- 0700 / 12
- 0900 / +1 = 13
- 1000 / +1 = 14
- 1100 / +2 = 16
- 1200 / +5 = 21
- 1300 / +1 = 22
- 1400 / +1 = 23
- 1500 / +1 = 24
- 1600 / +1 = 25
- 1700 / +1 = 26
- 1800 / +1 = 27
- 1900 / (+11 –12) = 26
- 2100 / -1 = 25
- 2200 / -1 = 24
- 2300 / -2 = 22
- 2400 / -4 = 18
- 0100 / -1 = 17
- 0200 / -1 = 16
- 0300 / -1 = 15
- 0400 / -1 = 14
- 0500 / -1 = 13
- 0600 / -1 = 12
April 2004

Census

Staffing

0700 0900 1100 1300 1500 1700 1900 2100 2300 0100 0300 0500

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census

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staff
Community Acquired Pneumonia (CAP) Identification Protocol

• Pre-2004 JCAHO standard / Abx < 8 hrs; CSMC E.D. standard < 4hrs.

• “Core Measure” of Quality Care
  – 100% of blood cultures prior to antibiotics
  – 100% of Antibiotics administered < 4 hrs from arrival
  – 100% of Patients oxygen saturation interpreted
C.A.P. Protocol Education

• 1:1 teaching method
• RN competency assessment developed
• Clinical criteria: Productive cough, chest pain (non-cardiac), fever, SOB, hypoxia, decreased breath sounds, other signs of respiratory compromise (wheezes / rhonchi / rales); or any combination of symptoms suspicious of pneumonia.
C.A.P. Protocol Procedure

- Quick registration process
- Triage RN orders 2-view chest x-ray
- Imaging technician escorts patient to x-ray, completes procedure & escorts patient back to triage waiting
- Radiologist contacts E.D. charge nurse with positive reading
- Charge nurse expedites patient placement
C.A.P. Protocol Procedure cont’d

• Charge M.D. alerted to patient placement & imaging results – orders blood cultures & antibiotics
• Primary RN obtains blood cultures & administers antibiotics
Multiple Use Space

- E.D. saturation / patient over-crowding
- Decreased patient & staff satisfaction
- Increased E.D. LOS
- Inpatient discharge delays
- Executive level “Capacity Management” task force
Imaging PACU

- 16 space PACU 6 monitored, 10 medical
- Occupied & staffed 0800-1700 M-F
- Located within 20 feet of E.D. / separate facility
- Support services: Supply cart, Medication cart, computer access & training
Management

- Imaging: space, monitors, gurneys
- Nursing office: personnel
- Emergency: supplies, medications, computer training, patients, immediate medical resource
Clinical Exclusion Criteria

- ICU level of care
- Vaso-active medication titration or Moderate sedation
- Pediatrics
- Psychiatric
- Respiratory Isolation
- Obstetric
- Direct admission from PMD office
- Interfacility transfer
EDOF Operational Concepts

- Monday-Thursday 1800 – 0600
- Friday-Monday 1800 – 0600
- 3 RN’s, 1 CNA, 1 Secretary
- RN’s call faculty or PMD for admission orders
- Patients have priority over direct admissions for inpatient bed assignment
- No bed in a.m. – return to E.D.
EDOF effectiveness

• Increased functional capacity of E.D.

• Increased patient satisfaction related to environment

• Increased staff satisfaction related to department mission