



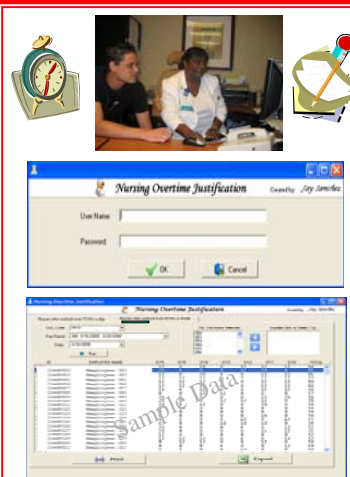
Electronic Tracking of Nursing Hours Worked in a Manual Nurse Scheduling Environment: Developing a Database to Manage Nurse Overtime

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BACKGROUND

- Regulatory approaches have been implemented to improve patient safety and nurse working conditions
- Department of Veterans Affairs Health Care Personnel Enactment Act of 2004 mandates congress receive annual certification of compliance with VA policies & procedures that limit RNs in direct patient care from working >12 consecutive hours/day or >60 hours/week
- Limited resources and budget constraints challenge administrators to manage resources & increase efficiency
- Absence of automated staffing forces labor intensive manual staff scheduling & timekeeping, no means to track aggregate nursing worked hours per day, is associated with high cost & inappropriate utilization of precious nursing management resource
- Management efficiency, productivity & effectiveness are challenged in environments which lack automated staffing.
- Addition of contract staff not in Vista increased time in manual labor calculation of NHHPD
- The administrative task of nurse managers developing a staffing schedule mirrors the medication administration process of clinical staff nurses in complexity
 - Critical thinking - Planning
 - Reconciling Resources/Requests - Assessing Effectiveness
 - Multiple interruptions

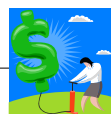


COST ANALYSIS/FEASIBILITY ASSESSMENT

CURRENT COST

Overall Estimated
Cost of Manual
Staffing
\$190,000/year

Includes Nurse
Manager (17 FTE) &
Timekeeper Cost
(3 FTE)



ESTIMATED EXPENDITURE

Automated Staff
Scheduling
Packages
\$110,000 average
Cost

Annual fees-
Maintenance
Implementation
Cost-
"Go-live" staffing
Education &
staff support



FEASIBILITY

Conduct Cost Benefit Analysis (CBA)
Assess budget resources
Assess workload
Assess staff satisfaction with scheduling
Assess labor issues (manual environment vs. automated)
Explore Automated Packages
Conduct a CBA on automated staffing package
Assess adequacy of Nursing infrastructure



DISCUSSION

Automation of OT reporting in a manual staffing environment assists Nurse Managers & Supervisors track compliance Nursing OT Justification Database supports current regulatory guidance that can positively influence patient safety and staff and management nurse retention.
Automating OT capture is a first step in controlling costs and can reduce errors, improve safety, and reduce nurse fatigue thus, improving nurse care and patient outcomes.
Development & evaluation of Nursing OT database is a VHA "best staffing practice" supporting efficient, safe and effective care in a non-automated scheduling environment.

IMPLICATIONS

- A local OT database facilitates real-time assessment of regulatory compliance
- Leveraging technology to by implementing a staffing package will decrease nurse manager workload and increase organization efficiency.
- Potential automation of staff scheduling may enhance work environment by increasing efficiency, improving work-life balance
- System redesign core principals of job analysis, access, timeliness lead to increase safety, efficiency, customer satisfaction & decreasing cost are congruent with automated staff scheduling
- Staffing packages have been estimated to reduce NM time by 6 hrs/pay period

PURPOSE

The purposes of this pilot were twofold:

- To develop and evaluate a database to precisely track RN direct care hours in keeping with Public Law
 - To estimate the human costs of manual scheduling and feasibility of acquiring an automated staffing package.
- The nursing process was the framework for project.

STRATEGIES

- Four phased project included:
 - Phase 1 - Assessment of scheduling documentation
 - Phase 2- Database development, assessment, data validation,
 - Phase 3- Implementation, usability testing and evaluation.
 - Phase 4- Advance initial database
- Nursing administration reviewed all existing databases & tools determining evidence of compliance
 - Data warehouse was reviewed & lacked Vista real time data
 - Initial focus on RN hours worked
 - Database developed in collaboration with IRMS using Vista live programming interface.
 - Assess current Nurse Manager scheduling practices
 - Nurse Managers were interviewed on procedures and practices for developing the "time schedule"

PROCESS OF MANUAL SCHEDULE DEVELOPMENT

Results of 5 (31%) Nurse Manager Interviews identified 3 discrete processes:

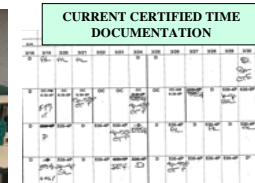
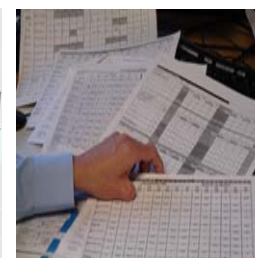
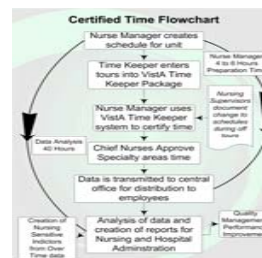
- "Balancing" the schedule:** Assessing minimum staffing criteria, honoring staff requests, and reconciling staffing numbers patient census
- Typing/Preparing for Posting**
- Reproduction & Distribution**

Intervening variables impacting schedule development were identified as:

- Number of staff/size of unit
- Distractions
- Acuity of unit
- Number of staff &/or units supervised

SAMPLE AND SETTING

- Miami VA Healthcare System is an urban tertiary teaching hospital with 579 acute, long term and rehabilitation care beds
- Nursing has 585.98 FTEE;
- Including 65.5% RN staff mix.



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