



Using Technology to Improve the Use of an Acuity Tool in a Perinatal Setting

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Objectives

- Discuss challenges to effective staffing in perinatal settings
- Describe the process of converting a paper-based acuity tool to an electronic format
- Identify potential uses for the data collected with the acuity tool

Benefits of Effective Staffing

- Better patient outcomes
- Increased patient satisfaction
- Increased nurse retention
- Increased nursing job satisfaction



ANA's Policy Statements

- Nurse staffing patterns and the level of care should not depend on the type of payor.
- Evaluation of any staffing system should include quality of worklife outcomes as well as patient outcomes
- Staffing should be based on achieving quality of patient care indices, meeting organizational outcomes and ensuring that the quality of the nurse's worklife is appropriate (1995)

Factors Which Determine Acuity

- Diagnoses
- Activity level
- Fetal surveillance
- Medications
- Lab tests/procedures
- Nurse experience
- Availability of support staff
- Patient anxiety

Staffing Challenges in the Perinatal Setting

- Widely variable census
- Two patients for each admission
- Rapidly changing acuity
- Unique emotional and social needs
- The nursing shortage
- Inadequate payor reimbursement

The Crawford Tool

- Designed for use on a high risk pregnancy unit
- Acuity score calculated each shift for every patient
- Acuity scores used to determine staffing needs
 - Each RN has assignment totaling 15-20 acuity points
 - RN:Patient ratio 1:3 to 1:6, depending on acuity

The Crawford Tool on Paper

HRPU Acuity Tool - Microsoft Word

File Edit View Insert Format Tools Table Window Help

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1 2 3 4 5 6 7

ANTEPARTUM / POSTPARTUM ACUITY TOOL
Date: _____ Shift: _____

DIAGNOSIS

OBS for Labor / Early Labor (intermittent toq)	Acute Anxiety/uncontrolled pain /Psychiatric illness /(Must document plan of care / interventions)	2
1	Cardiac Disease	
PIH (with or w/o chronic HTN)	1	
1	Chronic Hypertension	
HELLP/ DIC	0.5	
Acute 3	CNS / Seizure Disorder	
Resolving 1.5	1	
Placenta Previa / Abruption/ Bleeding	Diabetes Unstable or Day 1 new diagnosis	2
Active bleeding 2	2	
Stable 1	1	Stable or > Day 1
Preterm Labor/ Incompetent cervix	DVT	
Titration of Dmg 2	1	
Stable 1	Hypomagnesia / GI disorder or N/V	
PROM / Oligohydramnios/ IUGR	1	
IUFD / Termination (cervical ripening)	Infection (not previously listed)	
2	1	
Retained POC / D&C (post-op x 4hrs.)	MVC /Musculoskeletal /orthopedic condition	1
2	Pulmonary Edema / Embolus/ Acute Distress	2
Postpartum Hemorrhage (Resolving)	Asthma / Pneumonia	

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The Crawford Tool on Paper

HRPU Acuity Tool - Microsoft Word

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TREATMENTS			
Fetal Monitoring		Insulin / Heparin / Apresoline Drip	
Daily NST / Doppler / Intermittent FHR (q shift or less)	0.5	Initial / titrate	3
Intermittent FHR (greater than once per shift)	1	Maintain	2
Continuous FHR Monitoring with/without UCG	3	Gestational Diabetes Teaching	
Continuous UCG Monitoring for UCG	2	Initial	2
Twin Monitoring (Intermittent FHR or NST)	1.5	Reinforce	0.5
Twin Monitoring (Continuous FHR)	3.5	Terbutaline or Insulin Pump	
(Add 0.5 for triplet or higher)		Initial or titrate	1
Direct Admit (1*6-12 hrs.) or Transfer (from another facility, ER, ICU)	2	Maintain	0.5
Admission / Transfer from L&D or Triage (if admission history not initiated, count as direct admit)	1	Site change	0.5
Complete bedrest or Fall precautions	0.5	Magnesium Sulfate	2
O₂ Therapy / Pulse Oximetry / Peak flow Cardiac Monitoring	1	PO, IM, or SQ medications this shift	0.5
		IV, INT, or Central Line (each)	0.5
		IV Medications or Hyperalbumination	0.5
		Triple Antibiotics or IV push meds	1

Req#17842

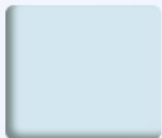
Rev. 4/03

TOTAL PATIENT SCORE: _____

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From Paper to Computer

- Microsoft Access structure
- Data standardization
- Eliminating redundancy
- Getting it all to add up!



Tool : Form

ToolID MRNum
Date GestAge:

Diagnosis

Observation for Labor or Early Labor	<input type="text" value="No"/>	Infection:	<input type="text" value="No"/>
PIH	<input type="text" value="No"/>	Anxiety:	<input type="text"/>
HELLP/DIC	<input type="text"/>	MVC/Musculoskeletal/Orthopedic:	<input type="text" value="No"/>
Placenta Prev/Abruption/Bleeding :	<input type="text"/>	Diabetes:	<input type="text" value="Stable or > Day"/>
Preterm Labor/Incompetent Cervix:	<input type="text" value="Stable"/>	CNS/Seizure Disorder:	<input type="text" value="No"/>
Retained POC/DC:	<input type="text"/>	Hyperemesis/GI Disorder	<input type="text" value="No"/>
PostPop/Postpartum:	<input type="text"/>	Cardiac	<input type="text" value="No"/>
PROM/Oligohydramnios/IUGR:	<input type="text" value="No"/>	DVT	<input type="text" value="No"/>
Postpartum hemorrhage	<input type="text" value="No"/>		
Pulmonary Edema/Embolus/Acute Distress	<input type="text"/>		

Microsoft Access

File Edit View Insert Tools Window Help

Type a question for help



CrawfordToolrev4192005_2005-04-25 : Database (Access ...)

Open Design New

- Objects
 - Tables
 - Queries
 - Forms
 - Reports
 - Pages
 - Macros
 - Modules
- Groups
- Favorites

- Create table in Design view
- Create table by using wizard
- Create table by entering data
- FetMonit
- Nurse
- Patient
- TableDiab
- TableDrip
- TableShift
- TblAdmit
- tblBleeding
- TblDIabTeach
- tblHalf
- tblHELLP
- tblPostPartum
- tblPreTLabor
- TblPump
- tblTwo
- Tool
- YesNo

Ready

What to do with all that Data?

- Benchmarking with other facilities
 - Length of stay
 - Diagnoses
- Identifying staffing trends
- Justifying nursing care
- Assuring adequate reimbursement



Implications for Nursing

- *“Nurses play a pivotal role in the quality and cost affairs for the hospital in which they are employed. By using supplies and manpower appropriately, they can affect the hospital’s financial bottom line and be retained at the bedside.”*

