Diagnostic Reasoning in Telephone Triage

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Objectives

At the completion of this presentation, the participant will be able to:

- consider the process used in decision making in uncertain conditions and how it is impacted by the nurse’s clinical knowledge base
- recognize the appropriate role of decision support tools in decision making
- identify measures which will improve quality and safety of telephone triage
Telephone Triage

- **Description:**
  - A component of telephone nursing practice that focuses on assessment, prioritization, and referral to the appropriate level of care.

- **Definition:**
  - An interactive process between nurse and client that occurs over the telephone and involves identifying the nature and urgency of client health care needs and determining appropriate disposition.

Nursing Process

- **Assess**
  - Data collection (Subjective & Objective)
- **Diagnose**
  - Conclusion (Triage category)
- **Outcomes**
  - What do you hope to accomplish?
- **Plan**
  - What needs to be done (collaboratively)
- **Intervention or Implementation**
  - How will it be done (think continuity!)
- **Evaluate**
  - How will you know if your patient *doesn’t* get better?
Types of Decision Making

- **Pattern Recognition**
  - ABCD problem
  - Immediate response behavior

- **Focused Decision Making**
  - Focused (specific to problem)
  - Limited problem solving (where/when to be seen)

- **Deliberative**
  - Deliberate problem solving
  - Need significant amount of information

Leprohon & Patel (1995)
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Airway/ Severe Dyspnea</th>
<th>Abdominal Pain/Headache</th>
<th>Minor/Vague/Chronic</th>
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</thead>
</table>
| **Characteristic** | EMERGENT<br>
Life threatening<br>
Pattern Recognition<br>
Immediate Response | URGENT<br>
Potentially life threatening<br>
Focused<br>
Limited Problem Solving | NON-URGENT<br>
Not life threatening<br>
Deliberative<br>
Deliberate Problem Solving |
| **ACUITY/URGENCY** | High | Moderate | Low |
| **ACCURACY** | Perfect | Highest % of error | Middle |
| **TIMING** | Shortest<br>(<2 min 93% of time) | Longer | Longest |
| **TRIGGER** | Symptoms only | Hypothesis (R/O Diagnosis) | Whole situation |
| **PROCESS** | Little deliberation<br>Or problem solving | Information seeking<br>Clarifying | Options/Alternatives<br>Negotiation |
| **COMMENT** | Rules of thumb<br>Intuition / Gut | Most complex<br>Greatest demand on knowledge base | Much Reasoning<br>Holistic |

Leprohon & Patel (1995)
Elements of Decision Making in Telephone Triage

Clinical Judgment

- Clinical Context
- Patient Preference/Concerns
- Scholarly Works: Clinical Knowledge & Decision Support Tools

Rutenberg & Greenberg (2012)
Greenberg & Pyle (2004) (with liberties)
Telephone Triage

“...telephone triage is one of the most sophisticated and potentially high-risk forms of nursing practiced today.” (p IX)

Rutenberg, Greenberg, 2012
Nursing Process

- Assess
  - Data collection (Subjective & Objective)

- Diagnose
  - Conclusion (Triage category)

- Outcomes
  - What do you hope to accomplish?

- Plan
  - What needs to be done (collaboratively)

- Intervene
  - How will it be done (think continuity!)

- Evaluate
  - How will you know if your patient doesn’t get better?
Why Hypotheses are Formulated

- Allows “clumping” of information to aid with short-term memory
- Information for decision making comes from long-term memory (education and experience)
- Encourages a systematic review of a system or disease process

Westfall et al (1986)
Diagnostic Reasoning Process:
Four Major Activities

- Attending to initially available cues
- Activating hypotheses which might explain the presenting symptoms
- Collecting data to rule-out, “rule-in”, or refine the hypotheses
- Use deductive reasoning to eliminate and settle on one hypothesis**

**In TT, seek highest risk, not most likely**

Westfall et al (1986)
DECISION SUPPORT TOOLS
“… there are aspects of the professional expertise and reasoning of nurses that resist being transformed into rules that can be embodied in so-called experts systems…”

Greatbatch et al. (2005), pg 826-7
In fact...

NURSES **DO** DeViate!

- **Explicitly**
  - By not using a protocol
  - By formally deviating from the recommended course of action

- **Implicitly**
  - By navigating the software in such a way as to reach the desired outcome
  - By how the recommendations are couched

O’Cathain et al. (2004)
We need checklists, but perhaps the checklist we need is for:

- The nursing process and critical elements within each step
  - Assessment (subjective and objective)
  - Nature/urgency/issues (what are we treating)
  - Goal of care (what is to be accomplished?)
  - Plan (what should be done?)
  - Intervention (what and how was it actually done?)
  - Evaluation (how do we know it met the goal?)

- Basic telephone triage skills and competencies
Implications for Practice

- Refined hiring practices
  - Best educated
  - Most experienced (years, diversity, life)

- Formalization
  - Specialized training
  - Program design so TT nurses are resourced and supported

- Reevaluate role and design of decision support tools
  - Development (open ended with room for flexibility and individualization)
  - Utilization (important *adjunct* to nursing judgment)

- Further research and discourse (on all levels)
  - Recognize need to discuss and teach diagnostic reasoning
References


Tanner CA (2006). Thinking like a nurse: A research-based model of clinical judgment in nursing. Journal of Nursing Education 45(6), 204-211.


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Questions and Discussion