


Sanders: Mosby's Paramedic Textbook, Revised 3rd Edition

PowerPoint Lecture Notes

Chapter 13: Clinical Decision Making

Chapter 13
Clinical Decision Making



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Objectives

- List the key elements of paramedic practice
- Discuss limitations of protocols, standing orders, algorithms
- Outline key components of the critical-thinking process for paramedics

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Objectives

- Identify elements necessary for an effective critical-thinking process
- Describe situations that may necessitate the use of critical thinking while giving prehospital patient care
- Describe six elements needed for effective critical decision making in the field

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Scenario

You respond to a private home for a person who has fallen down the steps. Your elderly patient is awake, slightly confused, and moves all extremities. He has a normal heart rate, but his blood pressure is low and his skin is pale and cool. His wife hands you a bag with his "heart" medicine.

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Discussion

- Does this patient face an obvious life threat?
- What part of his initial presentation doesn't fit?
- How might his home medicines affect his clinical presentation?
- What treatment should be considered?

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Cornerstones of Effective Paramedic Practice

- Gather, evaluate, synthesize information
- Develop and implement patient management plans
- Apply judgment and exercise independent decision making
- Think and work effectively under pressure

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Spectrum of Prehospital Care

- Obvious, critical life threats
 - Major multisystem trauma
 - Devastating single-system trauma
 - End-stage disease presentations
 - Acute presentations of chronic conditions
- Potential life threats
 - Serious multisystem trauma
 - Multiple disease etiologies
- Non-life-threatening presentations
 - Minor illness or injury
 - EMS system misuse

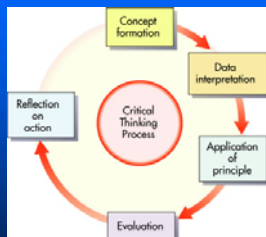
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Protocols, Standing Orders, Patient Care Algorithms

- Benefits
 - Standardized approach
 - Define, outline performance
- Limitations
 - Don't fit nonspecific complaints
 - Don't address multiple etiologies
 - Promote linear thinking

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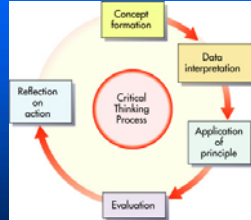
Components, Stages, and Sequences



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Concept Formation

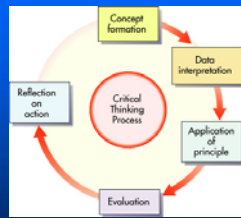
- Information gathered to form general impression of patient
 - The "what" of patient story



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Concept Formation

- Elements
 - Scene assessment
 - Chief complaint
 - History
 - Affect
 - Initial assessment
 - Physical exam
 - Diagnostic tests



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Data Interpretation

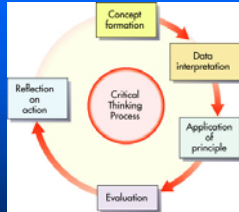
- Data gathered
- Paramedic knowledge
 - Anatomy and physiology
 - Pathophysiology
- Paramedic attitude
- Experience of paramedic



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Application of Principle

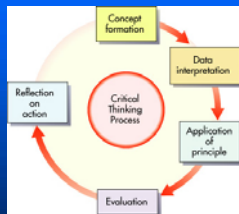
- Field impression/working diagnosis
- Protocols/standing orders
- Treatment/intervention



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Evaluation

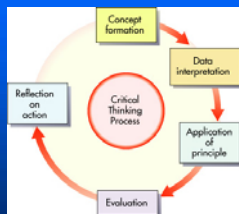
- Patient reassessment
- Reflection in action
- Revision of impression
- Protocol/standing orders
- Revision of treatment/intervention



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Reflection on Action

- Run critique
- Addition to/modification of paramedic experience base



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Fundamental Elements of Critical Thinking for Paramedics

- Adequate fund of knowledge
- Ability to:
 - Focus on specific and multiple data elements
 - Gather and organize data and form concepts
 - Identify and deal with medical ambiguity

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Fundamental Elements of Critical Thinking for Paramedics

- Ability to:
 - Differentiate relevant and irrelevant data
 - Analyze and compare similar situations
 - Recall situations where diagnosis was incorrect
 - Explain decision-making reasoning and construct arguments

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Field Application of Assessment-Based Patient Management

- Systematic means of:
 - Analyzing patient's problems
 - Determining how to solve them
 - Carrying out action plan
 - Evaluating effectiveness
- Integration of:
 - Interpersonal skills
 - Scientific knowledge
 - Skills

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Patient Acuity Spectrum

- EMS activated for many reasons
- Few prehospital calls true life threats
- Minor medical and traumatic events require little critical thinking
 - Usually relatively easy decision making

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Patient Acuity Spectrum

- Obvious life threats may pose limited critical-thinking challenges
 - May fit "model" for standardized treatment (e.g., cardiac arrest)
- Patients between minor and life-threatening events can pose greatest critical-thinking challenge

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Thinking Under Pressure

- Hormonal "fight or flight" response
 - Positive
 - Enhanced visual and auditory acuity
 - Improved reflexes and muscle strength
 - Negative
 - Impaired critical-thinking skills
 - Diminished concentration and assessment ability

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Mental Conditioning

- Key to effective performance under pressure
 - Skills learned at pseudoinstinctive performance level
 - Automatic response for technical treatment requirements

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Mental Checklist

- Stop and think
- Scan the situation
- Decide and act
- Maintain clear and concise control
- Regularly and continually reevaluate patient

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Facilitating Behaviors

- Stay calm; do not panic
- Assume and plan for worst; err on side of patient
- Maintain systematic assessment pattern
- Balance analysis, data processing, and decision-making styles

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Decision-Making Styles

- Situational analysis
 - Reflective versus impulsive
- Data processing
 - Divergent versus convergent
- Decision making
 - Anticipatory versus reactive

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Read the Patient



- Observe
 - Level of responsiveness
 - Skin color
 - Position and location
- Talk
 - Find chief complaint
 - New problem or worsening preexisting condition?
- Touch
 - Skin temperature and moisture
 - Pulse rate, strength, and regularity
- Auscultate
 - Lower airway
 - Upper airway

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Read the Patient



- Identify life threats
- Vital signs
 - Triage tool to estimate severity
 - Assists in identifying life threats
 - Influenced by age, physical and medical conditions, and current medications

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Read the Scene



- Environmental conditions
- Evaluate immediate surroundings
- Mechanism of injury

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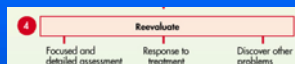
React



- Address life threats in the order found
- Determine most common and probable cause that fits patient's presentation
- Consider most serious condition that fits patient's initial presentation
- If clear medical problem is elusive, presenting signs and symptoms

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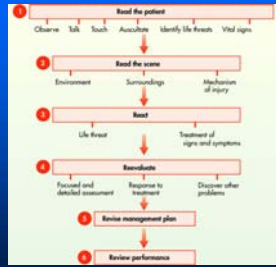
Reevaluate



- Focused and detailed assessment
- Response to initial management/interventions
- Discovery of less obvious problems

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Revise Management Plan



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Review Performance



- Run critique
 - Identification of areas that can be improved on similar calls in the future

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Conclusion

The paramedic must be able to gather, evaluate, and synthesize information; develop and implement appropriate management plans; apply judgment and exercise independent decision making; and think and work effectively under pressure.

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Questions?

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