

# **ACS: What nurses should be looking for and the clinical pathway**

A white ECG (heart rate) line is overlaid on the red background, showing a regular rhythm with a slight dip in the middle. The background features a dark red silhouette of a person's head and shoulders, and a blue gradient on the left side.

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Disclosures:

None

# The Clinical Pathway: ACS

Nurses are at the forefront of patient care and provide the majority of observation/monitoring, treatment, education and follow-up.

An ACS clinical/critical pathway defines and manages the sequence of events necessary to provide health care.

# The Clinical Pathway: ACS

Management of this process by nurses includes monitoring the timing of the expected and unexpected outcomes and providing feedback to providers so adjustments in therapy can be made to prevent the unexpected outcomes.<sup>1</sup>

Additionally, studies from around the world have suggested that clinical/critical pathways improve adherence to evidence-based guidelines.<sup>2,3</sup>

1. Nichol G. A Critical Pathway for Management of Patients with Acute Chest Pain Who Are at Low Risk for Myocardial Ischemia: Recommendations and Potential Impact. *Ann Intern Med.* 1997;127:996-1005.

2. Rong Y, et al. Clinical pathways for acute coronary syndromes in China: protocol for a hospital quality improvement initiative. *Crit Pathw Cardiol.* 2010 Sep;9(3):134-9.

3. Scott I. Determinants of Quality of In-Hospital Care for Patients with Acute Coronary Syndromes. *Dis Manage Health Outcomes.* 2003; 11(12):801-816.

# The Clinical Pathway: ACS

As there is increased competition and decreased reimbursement, critical pathways are seen as a means to:

- Reduce variation in care
- Decrease resource utilization
- Increase guideline adherence<sup>1</sup>
- Potentially increase quality of care<sup>2,3</sup>

1. Every N, et al. Critical Pathways : A Review. Circulation 2000;101;461-465

2. Mazzini M, et al. Effect of an American Heart Association Get With the Guidelines Program-Based Clinical Pathway on Referral and Enrollment Into Cardiac Rehabilitation After Acute Myocardial Infarction. Am J Cardiol 2008;101:1084 –1087

3. Mehta R, et al. Enhancing Quality of Care for Acute Myocardial Infarction: Shifting the Focus of Improvement From Key Indicators to Process of Care and Tool Use: The American College of Cardiology Acute Myocardial Infarction Guidelines Applied in Practice Project in Michigan: Flint and Saginaw Expansion. J Am Coll Cardiol 2004;43:2166–73

# The Clinical Pathway for patients with ACS

- Multidisciplinary plans of best practice for specified groups of patients with a particular diagnosis.
- To aid the coordination and delivery of high quality care from patient's admission to hospital to discharge.
- Based on national guidelines for the treatment of ACS.

# Nurses involved in the treatment of patients with ACS should:

- Maintain a comprehensive knowledge base of current treatment of ACS and recognize the importance of reducing treatment delays.
- Be well trained in ACLS procedures and be able to offer optimal critical care.
- Be familiar with equipment.
- Have excellent communication skills.
- Display empathy and calm confidence to the distressed patient.

# Emergency Department Nurses involved in the treatment of patients with ACS should:

- Perform a prompt initial assessment and focused history.
- Assess BP, heart rate and oxygen saturation.
- Quickly implement ACS protocols: ECG, IV access, cardiac monitoring.
- Initiate therapy as ordered/per protocol: ASA, oxygen, nitroglycerin, analgesics.
- Provide safe transport to catheterization lab or chest pain unit/cardiac medical unit.
- Provide concise, accurate hand off report to the receiving nurse and staff.

# Secondary prevention begins at the bedside upon admission

- Secondary prevention is more than a prescription from the physician.
- Patient buy in is key to success/good outcomes/long-term compliance.
  - Multidisciplinary approach to patient education: physician, nurse practitioner, physician assistant, patient care technicians, therapists should use every encounter with the patient as an opportunity to teach.

# Secondary prevention begins at the bedside upon admission

- Information about coronary heart disease, risk factors.
- Information about treatment, importance of taking drugs for preventing restenosis, reducing BP, lipid treatment.
- Information about adjustments in lifestyle (diet, physical activity, no smoking, reducing weight...).
- Encourage the patient to change his habits and behavior to stop the progression of coronary heart disease and to improve his quality of life.

# Nursing Goals in the management of ACS

## Expected Outcomes

- Pain related to cardiac ischemia managed
- Dysrhythmias managed
- Hemodynamics stable
- Anxiety reduced
- Respiratory status stable

# Nursing Goals in the management of ACS

## **Pain related to cardiac ischemia managed**

- Evaluate chest pain: intensity, location, radiation, duration, precipitating and alleviating factors. Especially look for atypical angina signs/symptoms: weakness, lightheadedness, nausea, diaphoresis, dyspnea, jaw, neck or back discomfort. Obtain 12-lead ECG during pain episode.
- Monitor oxygenation.
- Monitor telemetry for signs of ischemia: dysrhythmias, conduction disorders and/or ST changes.

# Nursing Goals in the management of ACS

## **Dysrhythmias managed**

- Monitor for cardiac dysrhythmias, IVCDs or AV blocks

## **Hemodynamics stabilized**

- Monitor vital signs to determine baseline and be able to recognize ongoing changes.

## **Anxiety reduced**

- Monitor verbal/nonverbal signs of anxiety: restlessness, agitation, verbalization of concern about lifestyle changes and prognosis.

# Nursing Goals in the management of ACS

## **Respiratory status stable**

- Monitor respiratory status for signs/symptoms of heart failure: dyspnea, audible crackles or wheezes, tachypnea, hypoxemia/hypoxia/cyanosis, frothy sputum, restlessness, increased anxiety, confusion.
- Monitor fluid balance: intake/output, daily weight.

# Nursing Goals in the management of ACS

## **No hemorrhage post catheterization/PCI**

- Assess for signs of hemorrhage: active bleeding or swelling, back or flank pain, vital sign changes (e.g. tachycardia or hypotension) and neurologic changes.

## **No peripheral vascular compromise post catheterization/PCI**

- Assess for: peripheral pulses, skin color and skin temperature.

# Nursing Goals in the management of ACS

## **Renal function remains stable**

- Monitor urinary output and renal function laboratory results

## **Hemodynamics stabilized**

- Monitor vital signs to determine baseline and be able to recognize ongoing changes.

## **Phase I cardiac rehabilitation initiated**

- Monitor patient ambulating: absence of angina, tachycardia, hypoxemia.

# Benefits

- Team work/collaboration among all health care professionals involved is necessary to achieve high quality management of patients with ACS.
- A more systematic approach in treatment.
- Shorter hospital stays, reduced costs have been suggested in the literature.
- Improved acute and long terms outcomes for the patient (improved quality of life, decreased mortality).

# QUESTIONS?

