

Commentary: Chest pain evaluation in the emergency department

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In this issue, Dr. David Mutrie¹ illustrates both the utility of departmental care protocols and the caution we must take in drawing conclusions from them. The latter point is particularly important if one wishes to apply these conclusions to other institutions.

The Thunder Bay Regional Hospital (TBRH), in Ontario, established simple guidelines for the management of patients with chest pain. Following the implementation of these guidelines, Mutrie reports shorter chest pain assessment times and reduced admission rates for non-myocardial infarction and non-unstable angina patients, without any obvious increase in inappropriate discharge of patients with ischemic disease. Can we therefore conclude that the guidelines were responsible for these improvements and that this set of guidelines would similarly improve performance in other emergency departments? The answer, unfortunately, is No. The fact is, the establishment of any organized approach to a clinical problem tends to improve performance. This is perhaps a sad reflection on "individual" practice patterns, but it is true nonetheless.

US patterns of care for chest pain patients have never been widely adopted in Canadian emergency

departments because they do not represent good medicine, not because we lack resources. Comparing chest pain statistics in Canadian hospitals to those at US hospitals is, therefore, not very useful. Comparing your hospital's statistics to those at TBRH is also difficult because no common baseline has been established.

Looking at the TBRH guidelines, it would appear that, in most cases, serial cardiac marker testing is done

before a disposition decision is made. If we assume an interval of about 6 hours between serial tests, then including such testing in the guidelines would slow down the decision-making process. In many centres the decision to admit or discharge is usually made within 2 to 3 hours, without waiting for cardiac markers, and there is no evidence to suggest that these centres have higher inappropriate rates of admission or discharge. The other clinical criteria in these guidelines are also essentially subjective; they rely on physician judgement to categorize the risk. While physician

judgement will always be necessary, only detailed objective criteria will permit physicians to truly optimize their performance with chest pain patients. We have seen an example of the effectiveness of objective criteria with the Ottawa Ankle Rules; we need similar objective criteria for chest pain.

What would happen if you applied the TBRH guidelines in your institution? It is difficult to be certain, but

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there would likely be a fairly even distribution of positive, negative and neutral effects, depending on your baseline performance. It is true that taking an organized approach to the management of chest pain in your emergency department is likely to improve care. Quality assurance is a most worthwhile activity, and we should all strive to include objective criteria, as they become available, in our clinical decision-making process.

Reference

1. Mutrie D. A new chest pain strategy in Thunder Bay. *CJEM* 1999;1(1):57-61

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