## Letter

## Referrals to intensive care: a region-wide audit

Lawrence McCrossan, William Bickerstaffe, Sobhy M Mostafa, Louisa Anderson, Lyndsay Cheater, David Jayson, Sarah Mitchell, Andrew Twist and Julie Wood

Association of Merseyside Intensive Care Units, Liverpool, UK

Corresponding author: Lawrence McCrossan, Lawrence.McCrossan@rlbuht.nhs.uk

Published: 10 January 2007

This article is online at http://ccforum.com/content/11/1/403

© 2007 BioMed Central Ltd

Critical Care 2007, 11:403 (doi:10.1186/cc5134)

We report the results of a 1-month audit conducted in six hospitals in the Mersey region of the UK. We assessed all referrals to the intensive care unit (ICU), looking at the circumstances of each patient referred; that is, the source, time and reason for referral, the grade of referring and assessing doctors, whether consultants were involved in decision-making as recommended by the Department of Health [1], reasons for admission or refusal to the intensive care unit, and the patient outcome.

Two hundred and twenty-seven patients were referred to the ICU on 244 occasions. Patients over 75 years old were least likely to be admitted (P=0.0001). Patients referred out of hours were more likely to be admitted to the ICU (P=0.005). Consultants referred or were aware of the referral in 55% of cases. This compared with ICU consultants being involved in 93% of cases. Patients were more likely to be admitted if a consultant made the referral (P=0.007). Patients referred from the operating theatre department had the highest mortality (44%). Intensive care mortality was 30.3%, compared with 15% for those patients judged 'too well' and 89.4% for those considered 'too ill' to benefit from intensive care. Approximately 10% of those patients judged 'too ill' for admission to the ICU survived longer than 30 days.

There was no significant difference in ICU mortality between medical referrals (31.3%) and surgical referrals (29.5%), but surgical patients were more likely to be admitted to the ICU than medical patients (66.4% versus 49.2%, P=0.007). This higher admittance rate is probably accounted for by the majority of surgical referrals being directly from the operating theatre.

Intensive care cannot replace lost reserve nor reverse chronic ill health. Limited physiological reserve is known to be an important determinant of mortality. The complexity involved in decision-making as regards whether or not a patient should

be admitted to the ICU makes it essential that senior, experienced staff are involved in the decision-making process.

## Competing interests

The author(s) declare that they have no competing interests.

## Reference

 Department of Health: Guidelines on Admission to and Discharge from Intensive Care and High Dependency Units. London: Department of Health; March 1996.