

# Are we assessing and documenting the mortality risk for patients undergoing major intestinal surgery?

Vishal Narwani, Katherine O'Shea, Michelle Lo, Nicola Coffey

Norfolk and Norwich University Hospital, Norwich, UK

## Introduction

Good medical practice includes consenting patients for all serious complications. For major surgery and high risk patients this includes death. It is estimated that around 20,000 – 25,000 deaths per year occur in hospital after a surgical procedure in the UK. Of these deaths, approximately 80% occur in high risk patients or patients undergoing major surgery (intraperitoneal, intrathoracic, or suprainguinal vascular procedures).

The NCEPOD published the *Peri-operative care report* in 2011, recommending that mortality risk should be made explicit to all patients and clearly documented in the consent form and medical records.<sup>1</sup> The General Medical Council (GMC) states that “doctors should inform patients if a treatment might result in a serious, adverse outcome, even if the likelihood is very small”.<sup>2</sup> Similarly, the Department of Health (DoH) advises that the surgeon “should warn the patient of anything that poses a substantial risk of grave adverse consequences”.<sup>3</sup> Although there is no concrete definition from the GMC or the DoH in regards to what a ‘serious’ or ‘substantial risk’ is, existing caselaw (*Chester vs Afshar 2004*) discussed in the House of Lords states that all “foreseeable (1-2%) but unavoidable risk of surgery” should be discussed with the patient, and can result in negligence if failure to do so.<sup>4</sup>

Not only the documentation of mortality risk has a direct effect on the quality of patient care, but it also serves a medical legal record.

## Aim

The aim of the study was to identify if mortality risk is documented in the consent forms or in the medical records of patients undergoing major elective colorectal resections and emergency surgeries.

## Methods

Between October 2013 and November 2013, a total of 104 patients underwent either elective colorectal resections or emergency laparotomies at Norfolk and Norwich University Hospital. 33 patients were randomly selected from the cohort (31.7%) and were included in the study.

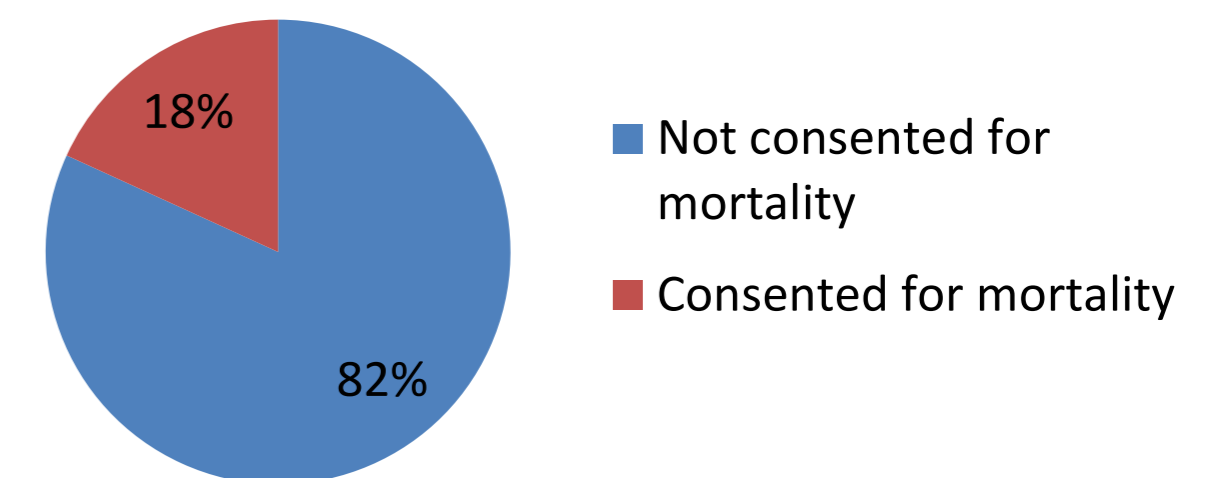
Consent forms and patient notes were reviewed to evaluate if mortality risk had been documented. Data was retrospectively collected from hand-written notes and consent forms. Two options were given for the documentation of mortality risk: ‘Recorded’ or ‘Not Recorded’. The target for documentation standard was 100%, based on NCEPOD guidelines.

A P-POSSUM (Physiological and operative severity score for the enumeration of mortality and morbidity) score was calculated for each patient to provide a mortality risk percentage. The P-POSSUM score is a widely used, validated measure that estimates mortality risk in the form of a percentage, based on 12 physiological and 6 operative parameters. The P-POSSUM score was calculated for each patient. We performed a paired t-test to assess whether the mortality risk documented in patient consent forms or notes, was statistically different to the P-POSSUM score calculated.

## Results

26.3% (5/19) of elective cases had mortality risk documented on the consent form; 7.1% (1/14) emergency patients had death documented on the consent form. No documentation of mortality risk was found in any patient notes. Overall, 18.1% (6/33) of all patients reviewed had mortality risk documented in consent forms (Figure 1).

**Figure 1 (Right)**  
Pie chart illustrating proportion of patients who were consented for mortality



Average P-POSSUM mortality scores were 1.42% for elective procedures and 25.9% for emergency procedures. 24/33 of patients had a P-POSSUM score  $\geq 1\%$ ; only 4 of these patients (16.7%) had a mortality risk documented either in the consent form or the patient notes.

Although the mortality risk documented in the consent forms (n=6) did not correlate the P-POSSUM score, these differences were not statistically different (p = 0.624)

## Discussion

Our study shows that only 18.1% of all patients reviewed had mortality risk documented in the consent forms; this is far from the 100% standard required by NCEPOD. If we take the recommendation from the GMC and the DoH and define substantial risk as  $\geq 1\%$ , only 16.7% of patients who had a P-POSSUM score  $\geq 1\%$ , had evidence of documentation of mortality risk.

The poor documentation rates are not limited to our institution; in fact, the mortality risk documentation is superior to the national average which is 7.5%. Poor documentation rates may be explained by the lack of specificity in the recommendations of mortality risk documentation by the GMC and DoH. Also, some surgeons may feel that conveying mortality risk to patients may only serve to unnecessarily increase patient's anxiety pre-operatively.

There are some limitations in the study. Although the number of eligible patients was relatively large, only a small proportion of patients were included in the study, due to the practicalities of retrieving physical notes. A larger sample is needed to confirm the study findings. Another limitation of the study is that verbal discussions of mortality risk may have occurred, but are not accounted for in the study. However, if not explicitly documented, it can lead to medico-legal implications.

## Conclusion

Documentation of mortality risk in surgery has been continuously advocated by several organisations. Our study shows a weak rate of mortality risk documentation in consent forms and medical notes. Mortality risk should be discussed with all patients undergoing major surgery, and clearly documented in the two stage consent process with the aid of prediction tools. This will ensure patients have realistic expectations, and optimise patient care.

## References

1. NCEPOD. Knowing the risk – a review of the peri-operative care of surgical patients. 2011.
2. General Medical Council. Good medical practice. 2013.
3. Department of health (UK). Reference guide to consent for examination or treatment. 2009.
4. General Medical Council. Consent guidance: Legal Annex. 2013