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RESEARCH ARTICLE

An Autopsy Study of Maternal Mortality in Mozambique: The Contribution of Infectious Diseases

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Maternal Death, Autopsy Studies, and Lessons from Pathology

Clinical perceptions of infectious causes of maternal death

Posted by plosmedicine on **31 Mar 2009** at **00:24 GMT**

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The prominence of infectious causes among autopsied maternal deaths (48.2%) presented by Menéndez et al, differs considerably from Global estimates. A systematic review of cause-of-death studies that relied on clinical diagnoses and verbal autopsies (VA) found infectious causes to contribute 2.1% of maternal deaths in developing countries, and 9.7% in the Africa Region (Khan et al. 2006).

It is disappointing that Menéndez and colleagues do not present data on how the causes they identified by autopsy were perceived clinically, and we urge them to publish this information. If clinical diagnoses and autopsy results on infectious causes largely agree, we might conclude that clinician diagnoses are generally reliable, and that the high proportion of infectious deaths in Maputo Central Hospital was probably due to the selected nature of the sample (a tertiary hospital in a setting where few women deliver in facilities). If by contrast clinicians under-identify infectious causes compared to autopsy, this suggests infectious causes are being missed in clinical decision-making.

There are other indications in the literature that infectious deaths may be underreported in studies of maternal death, possibly because causes of death are assigned based on received clinical wisdom about baseline probabilities of specific cause categories. When verbal autopsies are conducted, computer algorithms to classify cause-of death generate more infectious causes than physician-based reviews (Fottrell et al. 2007). Also, in-depth reviews of causes of death by members of the UK

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Confidential Enquiry into Maternal Deaths yield many more sepsis deaths that routine clinical cause-of-death classification via the Registrar General, in contrast to haemorrhage deaths, for example, where both sources are comparable (MacFarlane 2004).

Widespread facility-based post-mortem autopsies and accurate diagnostic tests for a representative sample of deaths are unrealistic in the near future. The method we do use for gaining a population-based understanding of the causes of deaths, the VA, would benefit from a better understanding of the accuracy of clinical decision making that can be achieved with autopsy.

This is not an esoteric quest for perfection but rather an attempt to address the desperate need for accurate and reliable cause-of-death data in the world's poorest settings. For example, clarifying the relative importance of infectious causes has widespread public health implications in terms of prevention and treatment, and priority setting and strategy.

References

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Competing interests declared: We declare that we have no competing interests.