

Risk Prediction Models: Can They Be Applied in All Situations?



To the Editor: This excellent paper by Bierle et al¹ gives great information regarding risk assessment before non-cardiac surgery. The authors mention that "...surgical urgency, surgical risk, and patients-specific risk factors are necessary inputs for clinical decision algorithms and society guidelines."

Why do risk factors and guidelines sometimes give different outcomes?

For many years, we have tried to organize risk according to different scales, and from that we have proposed guidelines.² It is difficult stratifying risk according to analysis of large amounts of data. Unfortunately, and not surprisingly, the risk factors for morbidity and mortality are cumbersome to apply to different populations.

Guidelines have changed over the years due to increased knowledge and technical advances in the health system around the world. Big scale studies fail when results are applied worldwide, specifically for different patients, places, and procedures. Quality of care is critical and diverse by nature, as has been reported earlier.³ Local experiences by hospitals and physicians have been disclosed only by a few (hospitals and physicians) worldwide.

How can we apply this knowledge to different scenarios?

There is sufficient information currently to indicate that different factors may impact the results of different surgeries in terms of morbidity and mortality: for example, the type of hospital (high- vs low-volume cases), expertise and training of physicians (surgeons, anesthesiologist, physicians with different specialties, and ancillary health personnel), presence and correct interpretation of new

monitoring devices, resources available, and expertise with different types of procedures.^{3,4}

Thus, guidelines should be analyzed critically. When applied locally, results can sometimes be misleading.

Maybe we will also have to assess risks in different locations and hospitals around the world. A complicated task, but necessary these days.

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In Reply — Risk Prediction Models: Can They Be Applied in All Situations?



To the Editor: I thank Dr Lema for his excellent insights. I agree that the best practices in an individual health care system should reflect local factors that influence the generalizability of guidelines and published studies. The use of Bayesian techniques can help overcome some of

these differences, but no score is a substitute for comprehensive clinical decision making.

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CORRECTIONS



Correction to 'Recruitment Strategy for Potential COVID-19 Convalescent Plasma Donors' [*Mayo Clinic Proceedings* 95 (2020) 2343–2349/3217]

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