



The Centre for Medical Education &
The Faculty Development Office
in collaboration with the
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MEDICAL EDUCATION ROUNDS

THE ROLE OF EXPERIENCE IN CLINICAL REASONING

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February 13, 2014
16h00 to 17h30

JSL Browne Amphitheatre, M3.301
Royal Victoria Hospital, 687 Pine Ave. W

Summary

When asked to choose a physician for their own care, most people opt for someone with at least 10 years experience, and are indifferent to how a doctor may have done in medical school or residency. This suggests that at some level, we place a high value on experience. But the role that experience plays in expertise is not well understood. This presentation explores this issue. The central finding is that both expert and novice diagnostic problem solving is based, to some degree, on a match to specific individual experiences – previous patients – in memory. The association occurs without conscious awareness. This presentation shows that this process is a component of diagnostic reasoning at all levels from novice to subspecialist, and in many domains. It may be based on visual similarity, but can also be present in verbal descriptions. As a consequence of the central role of this rapid pattern recognition process, diagnostic errors tend to be associated with slower processing, and admonitions to “go slow” or “take your time”, while they do result in slower processing, have no impact on errors. I conclude by examining the evidence that different instructional strategies based on this model of reasoning can enhance the accuracy of diagnosis.



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Geoff Norman, PhD, is Professor of Clinical Epidemiology and Biostatistics, McMaster University. He received a B.Sc. in physics from the University of Manitoba in 1965 and a Ph.D. in nuclear physics from McMaster University in 1971, and subsequently an M.A. in educational psychology from Michigan State University in 1977.

He is the author of 10 books in education, measurement and statistics, and over 200 journal articles. He has won numerous awards, including the Hubbard Award from the National Board of Medical Examiners. The Outstanding Achievement Award of the Medical Council of Canada, the Distinguished Scholar Award of the American Educational Research Association, and the Karolinska Prize for Lifetime Achievement in Medical Education. He presently holds a Canada Research Chair. He was elected to the Royal Society of Canada in 2007. He received an honorary doctorate from Erasmus University, Rotterdam in 2010.

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