

Abstract

Discovering the Sentinel Case: The Role of Informatics

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Sophisticated statistical and data mining methods are used currently to search for the earliest indication of a wide spectrum of events. These include: the presence of covert bioterrorism, an emerging infectious disease, an outbreak of known disease, an adverse drug reaction, or the existence of a subgroup of patients who respond well to therapy. Experience has shown, however, that very often the detection of such sentinel events is recognized first by the “prepared mind” of an alert clinician long before a signal is generated by statistical systems.

Can the capability of clinicians to recognize phenomena on the basis of just a few cases be harnessed to work with our untiring, objective but dramatically less sensitive automated systems? Informatics can contribute methods to the development of decision support systems that enable researchers to better capture the information in their data. This talk explores some approaches to acquiring, processing and analyzing data that can improve our ability to recognize sentinel cases.