An interaction of medical and statistical ethics

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Abstract

The twentieth century brought great advances in the widespread adoption of sound biometric techniques for interpretation of biological data. Yet even today a statistician can still be surprised by finding official support given to procedures that, despite intuitive appeal, have no sound logical basis. Thromboplastin, an important agent in the assessment of the speed of blood coagulation, is a material derived from animal tissue. Now a widely used aid to clinical haematology, each new batch requires to be calibrated against a recognized standard. This process takes the form of a routine experiment of simple design. WHO has published detailed instructions for analysis of the data that have become the accepted procedure for estimating the needed calibration factor, but that incorporate a dogmatic rule for removal of outlying observations. Having almost by chance earlier become involved in some clarification of the underlying linear model, I feel concern for the possible consequences of the WHO-recommended analysis. I hope to interest this meeting in the role of statisticians in ethical issues that may affect patient care and clinical practice.

References