Reporting Biochemical Toxicology to the Coroner must be Improved

Biochemical toxicology for the coroner should encompass a wide ranging analytical screen for drugs and toxic compounds. A multidisciplinary case conference in appropriate complex cases must become the norm to furnish the coroner with expert advice where toxicology is a factor in the cause of death. A networked Institute of Forensic Services in Ireland should be formed to integrate toxicology, chemical pathology and histopathology in the provision of best quality scientific reports for coroners.

In the Coroner's Act 1962 in Ireland, Section 33 sets the statutory arrangements for post-mortem and special examinations. For toxicology, "a coroner may request the minister to arrange - (b) a special examination by way of analysis, test or otherwise by a person appointed by the minister of particular parts or contents of the body or any other relevant substances or things,". In the Coroner's Act (Northern Ireland) 1959, Section 30 reads a "coroner who considers an analysis of any matter or thing of or concerning any dead body to be necessary may direct that such analysis be made by or under the supervision of a registered medical practitioner on the list mentioned in section twenty-six or by or under the supervision of the Director of the Northern Ireland Forensic Science Laboratory and it shall be the duty of such registered medical practitioner or Director (as the case may be) to submit a report of such analysis to the coronerâ . In the Coroner's Bill 2007 in Ireland, Part 10 concerns post-mortem and special examinations. Section 74, (3) states "Where a registered medical practitioner conducts a post-mortem examination or arranges for the conduct of a special examination.....he or she shall do so under the direction of the coroner."

The Review of the Coroners Service, Report of the Working Party, Department of Justice, Equality and Law Reform 2000, identified the long delays in biochemical toxicology analysis time and in the processing of tissue samples from autopsies as impeding the coronial process [1]. The maintenance of a Centre of Excellence to serve the coronial system was recommended but no such centre exists currently. The problem with the State Laboratory service is its isolation from clinical practice and its role in proving services to many sectors including agriculture. University College Dublin houses the Medical Bureau of Road Safety which also provides analytical services in drug toxicology in relation to driving under the influence of intoxicants. Other than turn-around times for reports, nowhere in the Report are the substantive issues of delineating minimum standards of service provision, in the scale and breath of toxicological screening, clinical governance involving toxicologists, chemical pathologists and biochemists and analytical best practice, mentioned for services in the Republic.

The Report of the Working Party recommended the establishment of a committee to devise coronersâ rules. The Rules Committee Report is inadequate in the biochemical toxicology sphere. Toxicology requires interpretative expertise with knowledge of toxicity, pharmacology and internal medicine. Factors which influence the biochemical result include the anatomical site of blood or other matrix sampling, the body storage temperature, the interval since death and movements and position of the body. There is in addition post-mortem redistribution of drugs and ante-mortem drug metabolism which must be considered to minimise interpretative errors [2,3]. Utilisation of appropriate expertise should be included in any set of coronersâ rules to reduce the likelihood of misinterpretation [4,5]. The degree of diversity of biochemical screening for toxins should be agreed nationally and remain constantly under review in response to local, national and international developments in substance abuse.

A multidisciplinary conference involving toxicology input in relevant cases should be a standard best-practice procedure to advise on the interpretation of the post-mortem findings in complex cases prior to the autopsy pathologist reporting the conclusions to the coroner. Meetings could be arranged both by video conference call and in person. Standard templates for reporting common analytes should be agreed to limit the number of case conferences. This is an important safeguard for the scientific integrity of the coronial process. Because the lawyer coroner is not in a position to specify the extent of analytical screening, the role of the toxicology interpretative and analytical service must be explicitly recognised. The Coroners and Justice Act 2009 in England and Wales specifies that there are training requirements for Medical Examiners in their new system both before and during their period in office [6]. The Medical Council in Ireland mandates audit as part of the Professional Competence programme in all areas which is a legal requirement since May 2011. These provide the templates for action.

The Coronial Service for Northern Ireland, operating still under the 1959 Act, does not require the reporting pathologist to hold a multidisciplinary meeting when there are positive toxicology results. However, system reform should include a multidisciplinary reporting system. Clinical governance and accreditation of the process should be centred around academic departments in both Irish jurisdictions. A networked Institute of Forensic Toxicology Services is possible in Ireland within current resources. The now routine practice of multidisciplinary case conferences in appropriate cases in hospitals must be brought to the coronial system. This is the surest way to limit interpretative errors and underpin the scientific integrity of the coronial system.

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