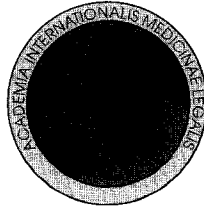


The Newsletter of the International Academy of Legal Medicine



Dear Members,

This 4th IALM-Newsletter brings you the Addendum of the Harmonisation of the Performance of the Medico-Legal Autopsy and the Syllabus of Postgraduate Specialization in Legal Medicine by the European Council of Legal Medicine (ECLM) and completes thus the series introducing ECLM documents.

Although modern means of communication like roaming and browsing the universe of network-accessible information e.g. World Wide Web has become increasingly popular, there is still place for a printed Newsletter. Therefore, I would like to encourage and appeal to all our members to take an active part in shaping this Newsletter. Send us information that would interest our readers: News of coming events: medico-legal congresses, workshops, courses and symposia. News on trends in legal medicine in your country or institute or short reports on congresses you have attended recently.

I would also appreciate it very much if institutes publishing annual reports on their activities would add us to their mailing list.

If you are interested in contributing to this Newsletter or if you have any other questions concerning the IALM feel free to contact me either by mail, e-mail, fax or phone. Please notice also that the fax and phone numbers have changed!

With best season's greetings and wishes for a prosperous 1996

Prof. P. Saukko, Secretary of IALM,
Editor of the IALM Newsletter

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ADDENDUM of the ECLM-Document:

HARMONISATION OF THE PERFORMANCE OF THE MEDICO-LEGAL AUTOPSY

Specific strategies (selected examples)

(1) Strangulation (hanging, ligature strangulation, throttling)

- The examination of the scene where the body was found is extremely important e.g. presence of a chair or similar platform; fastening of the strangulation implement; technique of tying of the knot; there may be a need for taping of hands and implements.
- Strangulation marks: depth, width, intermediate rings, direction, suspension point, blisters, raised ridges of skin, zo-

nes of hyperaemia, presence of duplicate strangulation marks

- Further specific neck injuries: dried excoriations due to slippage of the implement, marks due to textile weave pattern and structure
- Distribution of petechiae in the skin, bruising, scratch marks.
- Exsanguinations from facial orifices.
- Differences in widths of the pupils
- Localisation of livor mortis, presence and distribution of the congestion.

Injuries due to convulsions, defensive injuries, injuries due to being held forcibly.

Preparation/dissection technique: demonstration and documentation of the soft tissues, of the musculature and of the organs of the neck are predominant (see § 8).

(2) Drowning / Water death

Note carefully the following findings: foam at the mouth, cutis anserina; washer woman's hands, mud and algae, lesions due to water animals, injuries due to surroundings (e.g. rocks and ships); loss of nails, skin; localisation of livor mortis.

Technique: e.g. sampling of gastric contents, precise description of the lungs (weight, measurement, extent of emphysema), sampling for the possible demonstration of diatoms.

If required, sampling of drowning medium.

(3) Sexually motivated murder

The inspection and documentation of the scene of crime e.g. relative to the injury pattern, is especially important. All injuries should be photographed together with a scale. If possible, the body surfaces should be investigated under UV light and taped. Special emphasis is to be applied to the search for (foreign) pubic hairs. 'En bloc' dissection of the genital organs is strongly recommended, also the careful removal and sampling of (material under the) fingernails. Remove control hairs.

(4) Death from child abuse and neglect

State of nutrition and general care, thorough description and documentation of external injuries and scars, thorough examination for bone fractures (X-ray).

Consider the removal of a variety of tissue: e.g. all injuries, regional Lymph nodes; (in malnutrition) endocrine organs, immuno-competent tissues, specimens from different parts of the intestine.

(5) Infanticide / still-birth

Special techniques of dissection are necessary to expose the *faix cerebri* and the *tentorium cerebelli*; describe the site of *caput succedaneum*; remove all fractures 'en bloc'; investigate all centers of ossification (size and presence) in bone. Special care is to be applied to the thoracic organs: degree of inflation of the lungs, flotation test 'en bloc' and 'en detail'. All malformations to be described. Abdominal organs, gas content of the intestine. The umbilical cord and placenta should be described.

(6) Sudden death

A subdivision into 3 main categories relative to the further strategy after gross examination is useful:

- (1) findings obviously explain the sudden occurrence of death (e.g. recent myocardial infarction);
- (2) findings that could explain the death but not its sudden occurrence (e.g. stenosing coronary atherosclerosis);
- (3) findings are either nil/minimal or do not explain the occurrence of death.

Cases belonging to category (1) can be regarded as sufficiently solved, category (2) necessitates the exclusion of e.g. poisoning and possibly histological proof of recent or chronic alterations relative to the cause of death. Category (3) will

usually require extensive further investigations. This is especially so with sudden infant death cases. In such cases a more comprehensive investigative scheme is essential.

(7) Shooting fatalities

Specific examinations, prerequisites and sampling procedures are:

- extensive knowledge of the crime scene, of weapons involved, of types of bullets, of sites of 'environmental' damage and of cartridge cases, of relative positions of persons involved;
- thorough examination of the clothing and documentation of relevant damage, its careful sampling;
- thorough investigation and documentation of any blood (splash) stains on the body surfaces (including clothing and hands),
- precise documentation of bullet entry and exit wounds relative to anatomical landmarks and distances from the soles of the feet;
- documentation of any impression marks of the muzzle;
- excision of (uncleaned) skin specimens surrounding entry and exit wounds;
- X-ray before and/or during autopsy (where necessary);
- determination of bullet tracks and their direction(s);
- final determination of direction(s) of fire, of the succession of shots, of intra-vital occurrence, of the victim's position.

(8) Sharp force injuries

- examination of the weapons that are possibly involved (especially their dimensions);
- extensive examination and inspection of clothing (including damage, stains);
- careful dissection and description of all tracks (layer by layer) including their dimensions and weapon-related traces, look for signs of vitality;
- final evaluation of direction(s), physical force(s), mode of occurrence etc..

(9) Fire Deaths

remains of clothing, specific types and shapes of burns on the skin and mucosae;
heat-related alterations and peculiarities;
demonstration of /exclusion of fire accelerants;
signs of vitality: CO s HCN in blood, soot inhalation, skin lesions.

(10) Intoxications (General Outlines)

In all medico-legal autopsies: blood is to be collected from the femoral veins.

In primarily unelucidated causes of death: blood, specimens from liver and kidney and if possible urine and additional specific samples.

In specific suspicion of intoxication:

hypnotics, sedatives, psycho-active drugs, cardiac drugs and analgesics, insecticides: as aforementioned under (10.2).

drugs of abuse: as aforementioned under (10.2) and additionally cerebrospinal fluid, brain tissue, injection marks, scalp hairs.

volatile fat-soluble substances such as fire accelerants and solvents: as aforementioned under (10.2) and in addition: blood from left ventricle, brain tissue, subcutaneous fat tissue, lung tissue, clothing.

nutritional intoxication: as aforementioned under (10.2) and in addition: intestinal contents, if possible taken from 3 different sites;

suspicion of chronic intoxication (heavy metals, drugs, insecticides etc.): as aforementioned under (10.2) and in addition: hairs (tufts), bones, fat tissue, intestinal contents.

(11) Decomposed bodies

The presence of decomposition does not remove the need of a full autopsy.

Identification in such instances may cause major problems.

Radiological examination will exclude bony injury, the presence of foreign bodies e.g. bullets, prostheses.

A systematic dissection of body cavities has to be carried out. Toxicological studies (particularly estimation of alcohol concentrations) should be carried out but interpreted with great caution.

London, Fall/Winter 1994-1995

Syllabus of postgraduate specialization in legal medicine

As agreed to by the

European Council of Legal Medicine (ECLM)

Within the ambit of the pertinent legal system and professional medical ethical practices, the specialist in Legal Medicine should produce documented evidence of the acquisition of a broad knowledge, experience and expertise in the medico-legal matters. The items which are listed hereunder should form the basis of this specialization:

1. Proficiency in ordinary autopsy techniques and in the specialized post-mortem investigative procedures which are required for the elucidation of the mode and causation of death.

2. Familiarity with the methods by which a detailed external examination of the deceased should be carried out, to include methods of assessing the "post-mortem interval".

3. Direct and adequately supervised participation at a specialized department of Legal Medicine within an established post-graduate teaching commitment in a considerable number

of forensic autopsies, ranging over all age groups including children, and over a wide spectrum of causes of death to include homicides, suicides and fatal accidents.

4. Detailed microscopical examination of pathological material from a vast spectrum of natural and non-natural conditions, to include specialized microscopical, staining and histological techniques, and immunohistochemical and molecular biological methods.

5. Basic knowledge of diagnostic clinical pathology including a direct and supervised participation in a considerable number of non-forensic clinical autopsies carried in a clinically-orientated department of general pathology.

6. Personal attendance at the scenes of crime and of suspicious deaths to assist and take an active part in the teamwork required for on-site investigations, for the preservation and documentation of the scene and for reconstruction of the incident.

7. Knowledge of medico-legal criminalistics particularly the detection, collection and preservation of all trace evidential material, the sampling of stains and of body fluids, and of immediate "presumptive" in situ tests.

8. Compilation of authoritative medico-legal reports to the relevant authorities, describing in detail the findings and results of any examinations carried out and including a full and pertinent commentary which provides balanced opinions and conclusions.

9. Medical examination and detailed description of injuries on both living and deceased persons throughout the age spectrum, including cases of a sexual nature, that would enable a full evaluation on such aspects of direct legal interest as their method of infliction, possible causation, consequences and complications.

10. Knowledge of mechanisms of poisoning, and the clinical and laboratory evaluation of the presence and degree of intoxication in the living and the dead.

11. Familiarity with sampling requirements, with investigative laboratory techniques to include their discriminative value, their margins of error, and with the interpretation of scientific analytical reports in the context of all other relevant findings in the case.

12. Knowledge of principles of haemogenetics, to include blood group serology, iso-enzymes and DNA-related techniques as applied to matters of forensic interest, including disputed paternity cases.

13. Proficiency in identification procedures and methods to include elements of forensic anthropology and odontology, and in the procedures to be followed after a major incident.

14. Detailed knowledge of the legal status of the medical expert, of the laws of evidence and of the legal consequences of medical actions.

15. Familiarity with the forensic aspects of physical and mental health.

London, Fall/Winter 1994-1995