



## ***I.O.F.O.S. Recommendations for Quality***

### ***Assurance:BODY IDENTIFICATION. SINGLE CASE***

#### ***Working Group Background***

- IOFOS recommendations reviewed July 2018 with advice from:

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- IOFOS recommendations published (August 2005) with advice from: Andersen Torpet (Denmark), Christl Verbiest (Belgium), Leif Grusd (Norway), Svend Richter (Iceland), Claus Grundmann (Germany), Herman Bernitz (South Africa), Hakan Mörnstad (Sweden), and Yvo Vermylen (Belgium)

#### **IF YOU FOLLOW THE PROCEDURES AND STEPS**

1. A procedure/step can be used when considered to be worthy of acceptance or trial.
2. A procedure/step is only appropriate if it conforms to the local legal and ethical requirements and if it is consistent with the evidence available.

#### **GENERAL**

1. Each country/society may make more detailed requirements for quality assurance on a national level.
2. The forensic examination should describe oral and perioral details that can be used for identification, including assessment of sex and age.
3. As the death may be due to trauma or a violent crime, any injuries to the teeth, jaws and perioral tissues must be described and related to what may have happened.

4. The forensic odontology report should be understood independently.

### **PRE-EXAMINATION**

The Forensic Odontologist should make notes of the:

1. Date and by whom you were asked to perform the examination.
2. Date and place where the body was found.
3. Type of event which is presumed by the police to be the cause of death.
4. Date and place of the autopsy (post mortem examination).
5. Main findings of the autopsy and the cause of death as assessed by the Forensic Pathologist.
6. Date and place of the Odontology examination and those present.
7. Name of the Forensic Pathologist and investigating police officer(s).
8. If the examination includes a forensic anthropology exam, take note about the data informed in anthropological profile (sex, ancestry, age and height).

### **THE POST MORTEM EXAMINATION**

1. The dental status of each body must be described. If it is possible the team should be composed of two Forensic Odontologists either by: (a) both examining individually and cross-checking with each other; (b) one examine while the other take notes.
2. The jaws should be not resected. Using special preparation technique is possible to get a full overview of all teeth and allows the corps to be laid up. A resection of lower jaw or both jaws in cases of no other opportunity can only be made after consultation of the authority in charge for the investigation.
3. Note material available.
4. Assess the condition of the material.

5. Describe any injuries to the teeth, jaw bones and intra and peri-oral soft tissues.
6. Relate these injuries to the time and manner of death.
7. Describe how you obtain access to the teeth and jaws.
8. Describe if the material: (a) remains with the body; (b) is removed and where it is kept.
9. Describe for each tooth: (a) the clinical status: sound, carious, filled, crown, remaining root, lost *post mortem* or missing *ante mortem*; (b) additional characteristic features of the tooth; (c) material used in restorations and surface(s) involved; and (d) give a detailed description of prosthetic appliances.
10. Describe anatomical details and any other detail which could be important for identification. The description should include: (a) occlusion; (b) attrition; (c) tooth color; (d) periodontal condition; (e) calculus; and (f) staining.
11. Use preferably the terminology used in your country. Abbreviations and codes or keep a list of abbreviations used.
12. Radiographs taken and characteristics shown. A full mouth radiographs (OPG, complete set of intraoral, etc.) should be taken.
13. Photographs must be taken to document the most relevant features. A complete set of photographs should be taken for teeth and arches, using appropriate scales and labels to indicate arch or tooth position.
14. Supplementary examinations and findings.
15. Give an estimate of the age and the method(s) used.
16. Depending on the decision of the Forensic Pathologist or DNA expert, one sound tooth, f.e. first lower premolar, can be extracted for DNA analysis after the investigation.

## **THE ANTE MORTEM EXAMINATION**

1. Note material available.
2. Assess the quality of the material
3. Note: (a) full name; (b) date of birth; (c) address; and (d) sex; and (e) age at time of disappearance.

4. Note when the person was reported missing.
5. Note the circumstances under which the person was reported missing.
6. Note dental information given by relatives or others.
7. Note the dentist(s) from whom the record(s) were obtained: (a) name; (b) address; (c) telephone/fax number; and (d) e-mail.
8. Describe each tooth.
9. Use the same nomenclature as for the *post mortem* examination.
10. Give a detailed description of prosthetic appliances.
11. Describe anatomical details: (a) occlusion; (b) attrition; (c) tooth color; (d) periodontal condition; (e) calculus; (f) Staining; and (g) any other detail which could be important for identification.
12. Note radiographs available and characteristics shown.
13. Note photographs available and characteristics shown.
14. Note additional examinations.

## **COMPARISON**

1. Search for non-concordant features: (a) If non-explicable, exclude identity; and (b) If explicable, do not exclude identity, but continue to find compatible features.
2. Find compatible features and note for each tooth.

## **CONCLUSIONS**

1. The comparison should end in a conclusion about the likelihood of identity.
2. One of the following conclusions should be used:

(a) Identity established - there is enough PM and AM dental comparison information with several specific characteristics that are identical. Any discrepancies are compatible with time difference between the AM dental records and the PM dental investigation. Nothing refutes identity.

(b) Identity probable or possible - there is limited PM and AM dental comparison information with at least one specific characteristic that is identical between AM and PM. Any discrepancies are compatible with time difference between the AM dental records and the PM dental investigation. Nothing refutes identity. In this case identity cannot be excluded.

(c) Identity excluded - at least one special characteristic refutes identity.

3. List the concordant features on which the conclusion is based, using terminology which may be understood by general public.

4. The conclusion should be agreed by two Forensic Odontologists, if possible, and the report should be signed by both of them.