



I.O.F.O.S. Recommendations for Quality Assurance: BODY IDENTIFICATION.MASS DISASTER

Working Group Background

IOFOS recommendations reviewed (September 2017) with advice from Ruediger Lessig (Germany) – coordinator of the Working Group

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IOFOS recommendations edited (February 2008) with advice from: Nagesh (India), Kirsch (Germany), Prieels (Belgium), Bergman (Sweden), Dawidson (Sweden), Teivens (Sweden), Johannessen (Norway), and Stene-Johansen (Norway)

IF YOU FOLLOW THESE STANDARDS AND RECOMMENDATIONS

- Black indicates required steps (standards).
- Blue indicates recommended steps (recommendations) and may be omitted or changed without further explanation.

GENERAL

1. The purpose of the whole operation is to identify the victims and supposedly the dentists are aware of why they are involved.
2. The purpose is to establish the identity of all the recovered bodies through a process that guarantees quality.
3. The whole identification process is based on an inter-disciplinary approach of the identification process which implies team spirit, as well as interdisciplinary and intra-disciplinary approach. This implies that personal interest and involvement is inferior to the overall team policy

and individuals who do not follow these indications should not be part of a DVI team.

4. Forensic Odontologists must be prepared to work in the different phases of the identification process and should be included in all DVI phases, search & recovery, AM- and PM-data collection, reconciliation and identification. They have their specific tasks which should be well determined to fulfill in all these phases of the ID process.

5. Accuracy in work and protocols is indispensable at all levels and for all participants in the DVI process.

6. All personnel taking part in DVI process should be educated and trained to be able to perform under optimal conditions and deliver quality work. Training should be according to the international agreed standards.

7. The Chief Forensic Odontologist is the managing partner in the DVI process and will report to the DVI Commander about his section. He/she is also responsible for his/her team.

8. Standard Operating Procedures, with reference to a check list in order to prevent mistakes and loss of time, are mandatory and should be explained at the training sessions and followed by all involved at any time regardless of personal opinions.

AT THE SCENE OF THE INCIDENT

1. If necessary, Forensic Odontologists should be involved in the work at the scene of disaster to support the recovery team.

2. In the cases of high degree of destruction of the bodies forensic imaging like radiographs or CT scans should be taken.

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 mandibula or both jaws in cases of no other opportunity can only be made after consultation of the DVI commander.

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 colour; (d) periodontal condition; (e) calculus; and (f) staining.
11. Use preferably the DVI Interpol terminology, 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.

ANTE MORTEM

The Forensic Odontologist should

1. Assist the police to locate the dentists and ask for all available ante mortem material. A particular protocol for collecting the original AM dental material should be written out: (a) locate the victim's dentist (police and/or dentist); and (b) picking up the AM material (police) in a sealed envelope.
2. If required, Forensic Odontologist must be appropriately authorized to contact dentists or families to retrieve data.
3. Transcribe the dental information on to the ante mortem INTERPOL DVI forms. [If possible the data should be checked by a second forensic odontologist.](#)
4. Retain the material in the ante mortem file.

COMPUTER PROGRAMS

1. Ensure Forensic Odontologists are trained to use the system.
2. [Be especially aware of the coding and search systems - possibilities and limitations.](#)
3. [Be aware of the capabilities of the program: \(a\) a sorting program only; and \(b\) a complete program for sorting and reporting.](#)
4. Enter post mortem data - preferably directly during the autopsy.
5. Enter ante mortem data - preferably directly.

COMPARISONS

1. Comparisons will only be done after all processes necessary for a correct ID in the Reconciliation Board have been carried out. The Forensic Odontologist taking part in the reconciliation process should be a senior forensic odontologist with experience in personal id: (a) assess the value of the AM material; (b) assess the value of the PM material; and (c) comparing AM-PM material.
2. Assess the value of the results of the computer search and check the data in a manual comparison.
3. Compare information where identity is indicated and assess the value of the comparison and report to the reconciliation board.
4. If exclusion, give the appropriate authority immediate information/ notification.

CONCLUSIONS

1. 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 - 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.

(c) Identity possible - there is limited PM and AM dental comparison information with no 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.

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

2. The conclusion should be agreed by two Forensic Odontologists, if possible, and the report should be signed by both and send to the Identification Board.

IDENTIFICATION BOARD

1. The Forensic Odontologist who will be a senior Forensic Odontologist with experience in DVI should: (a) participate in discussions and be able to give information about the elements that lead to the positive ID based on dental means; and (b) participate in the process of the final identification together with the other expert groups.