

CLASSIFICATIONS USED BY AUSTRALIAN FORENSIC ODONTOLOGISTS IN IDENTIFICATION REPORTS

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ABSTRACT

Forensic odontologists are repeatedly called upon to assist in the identification of deceased persons. A great deal of information is available in the literature as to how and why comparative dental investigation of identification is performed but there is little information on the descriptive terms used in reporting these identifications. A forensic odontology report sets out the findings of a comparison between antemortem and postmortem evidence and indicates the odontologist's opinion on the identification. This opinion needs to be defensible in a court of law. This paper investigates the classifications utilised in the six states and two territories of Australia and reflects on the differences.

Three states of Australia use American Board of Forensic Odontology classifications, whilst the remaining regions use a modified format. Since there are no significant legal, cultural or religious differences, and similar practitioners and clients, variation between regions within Australia would seem hard to justify. National standard terminology should be encouraged. (*J Forensic Odontostomatol* 2006;24:32-5)

Key words: forensic odontology, identification categories, classification

INTRODUCTION

A common role for the forensic odontologist is identification of deceased individuals at the request of the Coroner, for whom a report must be prepared.¹ The most important component of this report is the conclusion, which is the odontologist's opinion of the likelihood of identity. Identification is established by comparison of antemortem and postmortem evidence. Based on the quality and quantity of comparable features available, different categories of identification can be assigned to cases with regard to their proximity to positive confirmation. It has been suggested that there is no requisite number of points needed to establish an identity.^{2,3} When sufficient characterisation exists without unexplainable

differences identity can be confirmed. The onus is on the odontologist as to how the identification opinion is classified, bearing in mind that the report is a legal document that may be called upon in court proceedings.⁴

A number of authors have published individual classification criteria for identification.⁵⁻⁹ More recently, the American Board of Forensic Odontology (ABFO)¹⁰ and the International Organization for Forensic Odonto-Stomatology (IOFOS)¹¹ have produced recommended standard definitions, described in Table 1 and Table 2.

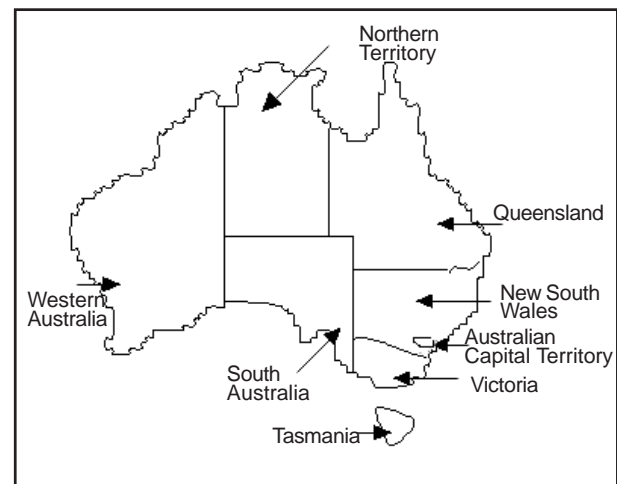


Fig.1: Map showing states and territories of Australia

MATERIALS AND METHODS

Australia is divided into six states and two territories (Fig.1) and identification casework tends to be limited to centralised groups in each region. It was assumed that each region adopted common reporting practices and a forensic odontologist from each region, active in regular coronial casework, was surveyed to determine how the state/territory categorises identification when reporting to the Coroner. Each odontologist was asked to document the classifications used in his/her identification reports. The results were then compared

Table 1: ABFO Classifications¹⁰

<i>Positive Identification</i> – The antemortem and postmortem data match in sufficient detail to establish that they are from the same individual. In addition, there are no irreconcilable discrepancies
<i>Possible Identification</i> – The antemortem and postmortem data have consistent features, but, due to the quality of either the post-mortem remains or the antemortem evidence, it is not possible to positively establish dental identification
<i>Insufficient Evidence</i> – The available information is insufficient to form the basis for a conclusion
<i>Exclusion</i> – The antemortem and postmortem data are clearly inconsistent

Table 2: IOFOS Classifications¹¹

<i>Identity established</i> - less than 1:10,000 other persons may fit the details; this conclusion may stand alone as evidence of identity
<i>Identity probable</i> - the conclusion needs to be supported by other evidence
<i>Identity Possible</i> - more than 1:100 persons may fit the details; the conclusion needs to be supported by other strong evidence

Table 3: Classifications used in Australia

State	ABFO	IOFOS	Other
Australian Capital Territory		No	Confirm - need 10 points of concordance, no discordance Possible - 10 points of concordance, explainable discordance or less than 10 points concordance Not possible - insufficient information Exclude
New South Wales		No	Confirmed - must have antemortem radiographs Consistent with - radiographs not mandatory More information required Exclusion
Northern Territory		No	Positive Insufficient information Exclusion
Queensland		No	Conclusive Consistent Lack of information Exclusion
South Australia		No	Confirm Strongly support Support Insufficient information Exclusion
Tasmania	Yes	No	
Victoria	Yes	No	
Western Australia	Yes	No	

to each other and with the ABFO and IOFOS categories.

RESULTS

The results obtained are presented in Table 3. None of the odontologists surveyed report using the IOFOS classifications. Western Australia and Victoria adhere to the ABFO classifications and Tasmania generally follows these classifications, although not strictly. Of the remaining states the ABFO terms are used in modified format.

Positive identification is used in those states conforming to ABFO definitions and also the Northern Territory. The Australian Capital Territory, New South Wales and South Australia use *Confirm* and Queensland uses *Conclusive*.

Those regions using ABFO terminology, as well as the Australian Capital Territory, use *Possible*. New South Wales and Queensland use *Consistent*. South Australia exchanges this category for two terms:

Table 4: Dictionary definitions

Word	Definition
Positive	Explicit, definite, unquestionable ¹³ Impossible to deny or disprove ¹⁴ Admitting of no doubt, irrefutable ¹⁶
Confirm	Provide support for the truth or correctness of, formally make definite ¹³ Make valid by necessary formal approval, indisputable fact ¹⁷
Possible	Capable of being ¹³ Having potential ¹⁴ Is that which is capable of happening (not feasible) ¹⁵ Of uncertain likelihood ¹⁶
Consistent	Not contradictory, compatible ¹³ Logical argument ¹⁴ In agreement, compatible, reliable ¹⁶
Support	Give corroboration to, strengthen ¹³ To uphold or defend as valid, substantiate or corroborate ¹⁷

Support and Strongly Support. The Northern Territory eliminates *Possible* altogether and has just three categories.

Insufficient Information is used in the Northern Territory and South Australia, as well as ABFO-adherents Tasmania, Victoria and Western Australia. The Australian Capital Territory uses *Not Possible*, New South Wales *More Information Required* and Queensland *Lack of Information*. All states and territories use *Exclude*.

DISCUSSION

Australian odontologists unanimously prefer not to use IOFOS classifications. This may be due to perceived difficulties in evaluation of cases statistically, given the lack of available relevant population data. The relative occurrence of individual features and combinations, and the resulting discrimination potential, is often unknown. The statistical component is designated as a "recommended step, which may be omitted or changed without further explanation,"¹¹ but inclusion in the classifications may be sufficient to act as a deterrent.

Only two states are satisfied that ABFO classifications are suitably worded to accurately reflect the intent of the odontologist. Given that an identification report is a legal document and its content may have to be justified in a court of law the terminology used must be accurate and the author of the report needs to be confident in qualifying it. If we examine the words disputed, their definitions can be explored and appropriateness ascertained. Definitions from various sources are shown in Table 4.

The main category of ABFO that was altered or omitted was *Possible Identification*. This may be a reflection of the perceived legal weight of the word *Possible*. It is not recognised as being within the legal standard of proof.¹² Common and legal definitions¹³⁻¹⁶ indicate uncertainty. After all, it is possible that the moon is blue, but highly unlikely. *Consistent with*^{13,14,16} (New South Wales) and *Supports*^{13,17} (South Australia) imply limited corroboration of existing evidence.

Keiser-Nielsen¹⁸ and others^{19,20} have proposed a minimum number of concordant characteristics are required to establish identity, whilst other researchers have suggested

that one or more highly individual characteristics may suffice.^{2,3,21-23} The Australian Capital Territory is the only region to specify a quantity requirement in their classifications; all the other states avoid a prerequisite level of concordance for each category.

Clearly individual odontologists will have his or her own opinion on which wording is most appropriate in a given situation and will thus report accordingly. It is important, however, that Coroners and Police investigators understand what is implied by the various categories. Legally, it is the Coroner who must determine identity.²⁴ Since there are no significant legal, cultural or religious differences, and similar practitioners and clients, variation in standard terminology between regions within Australia would seem hard to justify. Perhaps in the future group discussion will result in a national conformity between odontologists in Australia. A global approach also may be considered appropriate.

CONCLUSION

Between the various regions of Australia the categories of classification in identification vary marginally in the precise wording used and in some instances in the number of possible categories. Given that these classifications are presented to others who are not experts in the field and that these definitions on occasions need to be justified and qualified as being accurate it maybe that consistency in classifications would make life easier for odontologists in both reporting and defending their opinions.

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