Chapter 26
International Overview on Dental Damage Compensation

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Abstract After a brief international overview on the legislative and juridical frameworks of pecuniary and nonpecuniary losses related to dental injury, this chapter illustrates the methods of ascertainment and criteria of evaluation to be used for assessing these specific kinds of losses. In particular, the chapter describes in detail the medical interview; the physical examination of the claimant; the additional clinical and radiological investigations; the methods and criteria to be used for identifying, describing, and estimating any dental injury/damage; the treatment expenses; the temporary and permanent impairment; and the causal value/link between the event and the dental injury/damage.

26.1 Background

Whereas the medicolegal evaluation of dental and oral damage needs to be more thoroughly investigated in different countries by comparing methodological procedures and the qualifications of the experts who carry out such assessments in various legal frameworks, there is very little literature published on this subject. Occasional information can be obtained from scientific papers which mainly report dental malpractice cases or iatrogenic or traumatic lesions due to road or domestic accidents and crimes, but such seemingly small attention to this medicolegal field is linked to the dual nature of the activity. The dual nature of medicolegal activity implies two levels of reasoning, both "medical" and "legal," moving from collected clinical evidence to providing an evaluation according to specific legal compensation rules such as dentist liability, motor accident, worker compensation, etc. Therefore, the evaluation of damage, meant as the final assessment of ascertained physical or psychological impairment according to legally provided criteria, is intrinsically conventional and not easily subject to scientific experimentation.

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Thus, the discipline of damage compensation tends to occupy a significant place in the field of law, with the related medicolegal aspects being generally reported in national contexts, given the national variability of compensation systems and rules. The medicolegal ascertainment of a lesion or impairment relies first and foremost on "medical" assessment of the anatomical or functional loss that negatively influences a subject's ability and has caused suffering. Thus, diagnostic procedures that are clinically and scientifically accredited, including evidence from updated epidemiological studies, contribute to scientific knowledge about the causal link of injury and lesion. In addition to the different compensation rules and legal purposes underlying medicolegal activity, its specific diagnostic approach, along with legal or forensic demands, there is an autonomous, internationally recognizable and comparable discipline, with proper and appropriate procedures and methods and expertise qualification standards. Regardless of whether a dental impairment or lesion is to be assessed, the same medicolegal expertise is required of the dentist or forensic odontologist charged with damage assessment by the court, insurance company, or other interested parties. This chapter will discuss the particular diagnostic and prognostic issues connected with the medicolegal ascertainment of dental and oral impairments and the necessary qualification of the expert who deals with damage evaluation. A comparison of national impairment scoring systems or scales with those of other countries is not possible because of the extremely mixed criteria used to determine the degree of impairment and noneconomic loss due to injuries.

26.2 Ascertainment Methodology

The methodology for the ascertainment of dental or oral impairments requires appropriate and specific attention in order to reconstruct the event, as well as an interview with the individual who is claiming pecuniary or other loss compensation.

26.2.1 Reconstruction of Event and Causal Link

In case of dental or oral injury, an appropriate reconstruction of events through collection of circumstantial and clinical data is necessary to ascertain and evaluate the prior state of the subject, as well as the nature, entity, and plausibility of the causes of injury, by discerning the causal role of an accident or possible substandard care in comparison with preexistent or spontaneous pathological conditions.

Ascertaining the causal link between a possible cause and its consequence requires a complex evaluation, based on access to health records, accident reports, and other evidence. The first issue emerging from a comparison of different legal systems is the identification of the individual who has the burden of proving what damage has occurred and evidence for proving or disproving the causal link. In Italy

the injured subject (due to improper dental care or a motor/domestic accident) must prove the impairment, but the burden of proof concerning causal link depends on whether it is a case of dental professional liability (contractual civil liability) or of general civil liability (motor, school, domestic accidents, general tort law). In cases of suspected dental/medical negligence, the patient must allege the damage suffered and prove the contract with the hospital or doctors (a simple receipt is enough); then the hospital or doctors must disprove their liability, so they are not condemned to compensate the damages. In cases of general civil liability, the injured person must prove the damage/injury, the causal link, and the fault that caused the injury/impairment. In Belgium, Poland, and some countries with no-fault compensation schemes (Sweden, Denmark, New Zealand), the burden of proof is on the damaged person/patient. Referring to Sweden, Denmark, and New Zealand's no-fault systems, it is highlighted: "Whatever criteria are chosen, thorny causation issues will remain. Claimants still must establish a causal relationship between their injury and the care rendered (or not rendered). . .moving to an avoidability standard, or even of "no-fault" does not change this." However, also in those countries where the patient must prove the fault of the doctors/hospital, there is a trend toward the lightening of this burden, as reported by Kinga Baczyk-Rozwadowska: "medical and dental liability is based on fault. . . The general rule is that a patient is burdened with proving damages, fault and a causal connection between the faulty conduct and damages. However, in the field of medical malpractice, these strict requirements have been lowered by case law in order to be more convenient for a claimant."

Since the reconstruction of the event is quite relevant both for the individual injured in a motor accident and for the patient who alleges to have been damaged by improper care, the availability of and access to clinical records is always a key point of all medicolegal files. The reconstruction of the event for motor accident relies on the accessibility by the medical/dental assessors to the documentation of the accident (damages to car, reports of police, etc). In Italy, the UK, the USA, Australia, and presumably most countries, the dental consultant charged as medicolegal expert by the motor authority, insurance company, or the court may access all this information. Secondly, some information can be retrieved from health documentation released by rescue services, first-aid facilities, etc. This documentation can be accessed only by the injured individual, who must then provide it in order to prove any injury suffered as a consequence of an accident. Sometimes first-aid records do not accurately register missing or fractured teeth in case of multitrauma patients who are in a critical condition. Thus, forensic odontologists should consider the possibility of oversight and discuss the compatibility of the dental injuries reported by the subject with his/her trauma and other facial lesions in the medicolegal report. Even if poorly registered, the sequence of events and any urgent treatment provided may be of great importance for reconstruction of the event and evaluation of the traumatic injury, to exclude that improper care was given, and for final assessment of impairment after stabilization of the injury.

The obligation of the claimant to prove the injury suffered is more complicated in cases of litigation, and often this evidence can be provided only by obtaining

clinical records or administrative data from dentist's office. The release of such documentation becomes an important issue in patient-dentist disputes.

A complete circumstantial and clinical data collection supports the medicolegal expert by answering the classic questions of an investigation (Who? What? When? Where?), in order to provide evidence about the cause(s) and their causal link with the claimant's pecuniary or nonpecuniary loss.

When investigating what events caused an injury (such as dentist malfeasance, mistreatment, accident, crime), the forensic expert should never exclude that some injuries may have been caused by violence or aggression, and this possibility ought to be explored and considered (such as domestic accident or violence, battered child syndrome, etc.). The intensity, point of application, duration, direction of traumatic force, position of the body, and vehicle damage should all be investigated to explain the traumatic mechanism in case of accident (e.g., road or domestic accident). Ascertaining the causal link of event and injury is sometimes difficult due to multicausality, such as in cases where dentist malpractice is alleged in cases of complex dental treatment carried out in different phases by different practitioners or when a patient claims negligence in posttraumatic care on the part of the intervening physicians or dentists. Dental negligence cases require an evaluation of both the dentist's and the patient's conduct since therapy outcome or duration could be influenced by a patient who is noncompliant to prescriptions, recommendations, or appointments with the dentist. If another practitioner intervenes on the same patient, the actual condition or injury may have been caused by the first, the second, or both dentists. The expert must consider all overlapping causal factors in the evaluation of their role in determining injury or impairment.

The medicolegal evaluation of compatibility of a lesion with a trauma, assault, or improper treatment invariably requires a careful consideration of the time of the occurrence and the time lapse between the alleged cause and the effect, including what happened in the meantime. Moreover, what happened immediately after the traumatic event is also relevant in assessing dental damage and the related impairment. For instance, whether a lost tooth was correctly preserved before reimplantation in the empty socket and how long the tooth remained out of the mouth are critical elements for evaluation of the possible duration of a reimplanted tooth or even of the appropriateness of the decision to proceed with reimplantation. Claims that dental treatment has been inappropriately performed invariably require backup of correct time allocation, since the prosthesis may seem inadequate due to the time which has elapsed and not because of being incorrectly performed.

Through an accurate chronologic reconstruction of events, the forensic odontologist may provide useful and pragmatic information on important issues connected with medicolegal and insurance handling of cases. Insurance policies specify periods of validity, meaning that the time when an event occurred is always relevant. There are also different kinds of professional liability insurance based either on "loss of occurrence" or "claims-made" basis, since the time at which the event occurred and the time the claim was filed, respectively, can infringe on coverage.

26.2.2 Interview and Visit with the Claimant

When examining the claimant, forensic odontologists must respect the same legal and ethical duties and rules of good clinical practice that regulate the dental profession at large. Forensic odontologists should carefully inform the patient about the aims of the visit, which is not intended for diagnostic or therapeutic purposes in a traditional sense. Although the examination for medicolegal purposes requires that only limited information be given to the patient, the process is demanding for medicolegal experts since they have no prior relationship with the individual they are examining, unlike their personal physician/dentist. More attention should be paid than in general dental practice to the protection of privacy and confidence, since medicolegal reports, containing the patient's personal and health data, are often seen by insurers, loss adjusters, and lawyers. Therefore, the claimant must provide appropriate and specific authorization.

In addition to the deontological and legal obligations, which all medical professionals must assume, of reporting incompetent, impaired, or unethical colleagues, forensic odontologists and other medicolegal assessors is requested to review and examine many clinical certificates or reports of other specialists/experts, so that there is more likelihood of disclosing medical misconduct. Therefore, medicolegal experts bear greater responsibility in balancing their duties toward their patients with the respect due to their colleagues and need robust evidence of negligence or unethical behavior before releasing a verbal or written opinion to a patient.

The medicolegal expert's visit with the claimant should include both the familial and personal (physiological and pathological) history of the patient in relation to the subject's age, gender, claimed dental treatment, etc. and the lesion/impairment under investigation and evaluation. For instance, tooth emergence and menarche are factors usually investigated if an orthodontic treatment is questioned or should be performed to amend injuries; pregnancy status is relevant if the patient needs an X-ray. Some malocclusions or periodontal diseases are familial, so their possible occurrence in the patient's family should be inquired about. Past facial and oral traumas should always be reported, especially in growing subjects, in whom they may cause defective development of dentition, malocclusions, or late pulp necrosis, which does not emerge until months or more frequently years after the traumatic event. General health conditions should be carefully investigated (systemic pathologies, surgical interventions, drugs, radiotherapy of skull-neck, etc.) in order to explain oral symptoms (e.g., diabetes, periodontitis, osteonecrosis related to medication/radiotherapy, xerostomia due to drugs). The familial and personal medical history is a mainstay of the prior state of the subject needed to identify the entity of the damage and assess what part of the impairment is due to preexistent or autonomous conditions. The subject's employment or profession should be investigated since his/her ability to work may be impaired after facial/oral/dental traumas or improper therapy.

The medicolegal expert's examination of the patient should report on the general appearance of the patient's face; aesthetic abnormalities; the condition of the teeth, tongue, and gum; temporomandibular joint (TMJ) functionality; etc. The visit should focus on the specific dental/oral impairment or injury: teeth (occlusion, chewing, aesthetic function, etc.), periodontal structures (gum, alveolar, bone, etc.), and maxillaries (deformities, malocclusions, limitations to mouth opening, etc.), TMJ (pain, limitation, etc.), nerve lesions (taste and sensitivity disturbances/loss), speech impairment, suction, and swallowing disturbances. The description should be complete and objective, clearly indicating the adopted teeth numbering system (FDI—World Dental Federation, universal, etc.) and reported according to accredited glossaries and abbreviations for dental treatments conveniently explained in the text. Although official glossaries and coding systems are generally endorsed by national and international dental associations for achieving a standardization of registrations, the medicolegal report is addressed to non-dentists, and an excess of technical codes or abbreviations may be cryptic and hinder rather than facilitate immediate understanding.

26.2.3 Additional Investigations

Radiological exams are a mainstay for clinical diagnosis and medicolegal assessment of dental or bone injuries or impairments. As in routine dental work, bidimensional X-rays usually suffice for investigating oral/dental injuries or impairments (intraoral, bitewing, orthopantomograph, radiography of temporomandibular joint syndrome). Some patients may have to undergo computerized tomography (CT), using multislice CT, dentascan, or cone beam CT, to complete the diagnostic process (bone fracture, impacted teeth, penetration of maxillary sinus, etc.). Magnetic resonance imaging (MRI) is limited to very special cases (e.g., temporomandibular joint syndrome, internal derangement), and ultrasound is mainly used for detecting pathologies affecting salivary glands. Some neurophysiological exams (e.g., blink reflex) can be used to assess lesions of the trigeminal nerve fibers. Generally speaking, the justification of exams performed for medicolegal reasons invariably raises issues connected with the biological risks to the patient and costs of the procedures, especially in cases of repetition of exams or exploratory investigations.

Although X-rays are of vital importance in assessing oral injuries/impairments, legal restrictions and ethical recommendations must be kept in mind by medicolegal experts since this relevant matter has been dealt with by specific laws. Directive 97/43/Euratom defines medicolegal investigations as "radiological procedures performed for insurance or legal purposes without a medical indication." Furthermore, the directive requires that special attention be paid to justification and optimization of such practices and that clear procedures and responsibilities be defined.

The recent Council Directive 2013/59/Euratom, "Laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom" has established: "The so-called "medico-legal" exposures introduced in Directive 97/43/Euratom have now been clearly identified as the deliberate exposure of individuals for other than medical purposes, or "non-medical imaging exposures". Such practices need to be placed under appropriate regulatory control and should be justified in a similar way as for medical exposures. However, a different approach is needed on the one hand for procedures using medical radiological equipment and on the other hand for procedures not using such equipment. In general, the annual dose limits and corresponding constraints for public exposure should apply." The IRMER 2000 in the UK provides that "Medico-legal procedures are those which do not have a clinical benefit to the patient, but are carried out to provide legal evidence, e.g. in the case of an allegation of assault. A medico-legal exposure must still be justified in that there is a net benefit to the individual or to society." The medicolegal exposures are widely diverse, possibly including all exposures not directly related to the health of the individual undergoing X-ray examination, mainly, but not exclusively, represented by those performed for insurance or legal proceedings (e.g., security scanners). Although many countries have implemented European Union Directives in their national legislative frameworks, justification of medico-legal exposures and procedures is of constant concern, especially when they imply high-dose radiography, a repetition of X-rays, or radiological exams in multi-exposed subjects or children. These issues have been addressed in some countries by imposing a referral to a practitioner who must evaluate the justification of the X-ray exam, with the consequence that exposures performed at the request of insurers are considered unjustified. Medicolegal experts should appropriately address the collection of radiological exams that patients have already undergone, assisting and motivating requests for radiography copies from hospitals, radiological services, and dental practitioners, thus avoiding exposing the patient to useless and unjustified procedures. Nevertheless, cases can occur in which the radiological exams undertaken for clinical reasons do not suffice for medicolegal diagnosis. For instance, if the healing process is still ongoing from when the last X-rays were taken, serious clinical doubts exist about the complete healing or the gravity of possible residual dental or bone damage. In such cases, a very typical diagnostic aim exists and X-ray exposure can be justified when properly addressed by physicians or dentists.

26.3 Evaluation Criteria

In every country, the individual who is requesting damage compensation must prove to have suffered pecuniary and nonpecuniary loss in order to be eligible for compensation. In case of oral injuries, the medicolegal expert may face very

specific demands relating to temporary and permanent impairments and expenses for amending dental damages as well.

26.3.1 Temporary Impairment

Injured patients may experience temporary conditions of serious physical pain and limitations of chewing, speech, or aesthetic alterations of the face. Additional treatments, such as root canal, endodontic therapy, and bone fracture synthesis, can result in a prolongation of symptoms affecting stomatognathic function. Pain, bleeding, edema, or trismus, due to oral injury, can lead to dietary restrictions to soft or liquid food for days, difficulty in speaking, and alteration of facial aesthetics and requires specific pharmacological therapy or oral hygiene procedures that are difficult for the subject to comply with away from home. Consequently, the subject may experience a temporary inability to work and to attend school, social, or recreational activities. This type of damage is generally called "temporary impairment or temporary invalidity" and is recognized as a specific kind of loss and suffering entitled to compensation under specific legal conditions in all civil legal systems. In Italy, temporary impairment of 100 % occurs when the subject is hospitalized or largely impaired, while partial temporary impairment (25 % or less) is very common in dental injuries when one or some bodily functions are temporarily limited (speech, dietary restrictions due to chewing limitations, aesthetic facial alterations due to edema or hematoma, etc.). Very low rates of temporary impairment for long periods, even years, may be compensated for when a subject must have an orthodontic appliance inserted to correct posttraumatic malocclusion. In France, the "souffrances endures" (time of suffering and pain) and "prejudice esthetique temporaire" are assessed in addition to the deficit "fonctionnel temporaire." In Belgium, compensation is awarded for temporary economic disability and domestic or school disability, while temporary aesthetic impairment is not normally considered except in the most severe cases (disfigurement). Temporary impairment must generally be proven beyond the absence from work and cannot rely merely on certificates from a general practitioner. In New York State, the court trial of Daviero v. Johnson, 451 N.Y.S.2d 858, held that such a claim does not meet the requirement of a "significant limitation of a use of a body function or system. . .. The court noted that the mere fact of absence from work, without medical proof indicating a significant limitation of a use of a body function or system is manifest and contrary to the intent of the Legislature."

26.3.2 Permanent Impairment

Practically every civil legal system provides compensation for certain permanent impairments, which are generally defined as the assessable condition of permanent

detriment of physical or psychological function, when the symptoms due to injury have stabilized. The key points of the related medicolegal activity rely upon two ascertainment phases addressed to disclose the existence of the impairment itself and its degree and whether it is permanent. The medicolegal ascertainment of a body detriment requires a specific approach in comparison with general clinical procedures designed to provide the most appropriate care to patients, according to coincident interests of the various "parties" (doctors/hospitals and patients). On the contrary compensation can be legitimately sought when certain kinds of loss/damage have been assessed and appropriately correlated with an illegal conduct. Inevitably, therefore, at least two parties arise with different interests and biases. For instance, the claimant could be biased toward exaggerating the symptoms, by incorrectly reporting limitations to daily life activities or pain and suffering or by seeking for unjustified clinical consultations and certifications to complete the claim. Conversely, defendants, insurance companies, or institutions burdened to grant compensation under specific circumstances have the opposite interest in wishing to demonstrate that the purported loss is unfounded.

The medicolegal expert must typically and appropriately go through the clinical conditions of the claimant and the documentation comprising the claim, looking beyond the possible bias of the parties, and eventually addressing the question about the existence and degree of the purported physical/psychological impairment, on the basis of the evidence available and at the time when the medicolegal opinion is released.

Thus, medicolegal activity is highly demanding, and experts need to be as acquainted with clinical issues relating to difficulties in reporting subjective symptoms, such as pain, as they are with the legal framework they are operating within, keeping in mind first and foremost who is burdened to prove or at least allege the loss or impairment and what level of evidence is requested by the different compensation rules. The abovementioned issues concerning the existence and proof of impairments eligible for compensation equally affect the ascertainment of permanent physical damage occurring in the oral and facial region. Facial or TMJ pain or sensitivity disturbance of trigeminal nerve fibers can be mentioned as meaningful examples which challenge medicolegal diagnosis due to the high subjectivity of symptoms and the uneven or seldom effective evidence provided by instrumental exams.

Ascertaining the permanency of any given physical or psychological condition is another very specific step of medicolegal expertise, which requires follow-up schedules and timely impairment evaluation when stabilization has occurred. The improper medicolegal evaluation of a given impairment may result in an inconclusive report or, worse, in an incorrect estimation. In the field of oral and dental impairments, some pathological conditions require that the final medicolegal assessment be postponed for months or years after the injury. Most neurological lesions to trigeminal branches (lingual or alveolar nerves) occurring during oral interventions heal spontaneously within about a year from the iatrogenic insult, so that the final ascertainment of whether the nerve lesion is permanent or temporary cannot be made before an appropriate number of months and clinical follow-up.

Possible impairments due to maxillary or dental trauma occurring in little children frequently need to be assessed years after the injury to exclude that a deficit of development has emerged from permanent dentition or skeletal structures. Otherwise, an underestimation of impairment and the compensation due can occur, and the subject could be damaged twice: by trauma and by incorrect medicolegal handling of the case.

Oral/dental injuries can result in more than one impairment due to structural/anatomical and functional loss. Possible impairments to mastication, deglutition, digestion, speech, trigeminal nerve, and facial aesthetics are constantly investigated in cases of oral injury in an ascertaining approach that is similar in all legal systems. Although the need to investigate impairments eligible for compensation is dictated and influenced by different legal systems, the ascertainment of the existence and gravity of a dysfunction/alteration/deformation relies on very similar procedures that invariably precede and support the final medicolegal evaluation of loss/damage. Similarly, in most countries, the medicolegal ascertainment of impairments due to tooth loss takes into consideration the amendment/alleviation capacity of dental treatments (fillings, prosthesis, etc.) and the possible change in treatment or prosthetic appliance compared to the prior state of the subject, thus addressing the related cost in the compensation assessment.

Remarkable differences emerge when medicolegal evaluations of ascertained impairments are compared in different countries. For instance, in Italy, the average detriment due to the loss of an upper central incisor is considered equal to that due for the loss of the first upper molar, while in the UK the loss of a back tooth is generally less compensated than a front one. Dietary restrictions are highly considered, especially in the USA and Australia where they are the prevalent criteria in cases of dental/TMJ injuries (1st grade (diet is limited to semisolid or soft food), 2nd grade (diet is limited to liquid food), 3rd grade (ingestion of food requires tube feeding or gastrostomy)), while damage to the teeth can mainly be compensated when there is a permanent impact on chewing and swallowing. In many countries with Roman law such as Italy, France, and Belgium, permanent impairment is calculated in percentages according to tables which generally provide detailed values for each type of tooth loss (incisor, canine, etc), TMJ or trigeminal disturbances, aesthetic alterations, etc. In some countries, personal injury thresholds are provided by compensation schemes for road accidents so that an injured person can recover certain noneconomic losses (e.g., pain and suffering) through a civil suit unless he/she can demonstrate to have incurred "serious injury," such as dismemberment, disfigurement, permanent impairment, or loss of function of a body organ. Thus, the accurate assessment of functional or structural impairments becomes extremely important in this field, since it can affect the plaintiff's opportunity to demand broader compensation according to a tort lawsuit. For instance, in Australia (State of Victoria—TAC, Transport Accident Commission), in cases of motor accidents, impairment is compensated with a lump sum if the permanent impairment score is over 11 %. This sum is intended to compensate for loss of function and movement, not pain and suffering or loss of enjoyment of life—which are covered under common law payments.

26.3.3 Dental Treatment Expenses

The costs of dental care intended to amend lesions/injuries caused by an injury or malpractice are another mainstay of dental damage evaluation. In most countries, dental treatment costs of alleviating dental injury or impairment are compensated for, and the assessor is charged with evaluating such therapies and their related costs. The expert's opinion on the eligibility for reimbursement of dental care expenses requires several considerations. First it must be verified if the care is intended to amend those impairments eligible for compensation and if the treatment for the clinical condition of the injured patient is appropriate, since some claimants seek compensation for the most expensive treatment (implants, prostheses, e.g.) even if his/her condition could contraindicate it (untreated and severe periodontitis, e.g.). Sometimes the damaged individual seeks compensation before undergoing dental treatments, filing the claim with dental surgeons' certifications and/or plans of treatment with presumptive costs for dental care in a complex and general plan of therapy, so that the medicolegal expert is required to provide detailed differentiation of costs due to additional care.

A second challenging part of the expert's job consists in the evaluation of expenses due to future dental treatments. Practically all dental treatments (fillings, prostheses, implants, etc.) must be renewed during a lifetime or replaced by another treatment (an incisor treated two or three times with large fillings may eventually need root canal treatment and a crown). There are two main approaches for this type of expense compensation: in some countries (Belgium or in Italy for worker compensation), the need of a dental treatment replacement or renewal is assessed by a dental advisor/assessor who evaluates the related expenses time by time, while in others (in Italy, for general civil liability as well as medical/dental malpractice, motor accident compensation, etc.), a lump sum is provided as compensation after the damage assessment so that the dental assessors must be able to predict all treatment renewals or replacements that will be necessary during the lifetime of the individual and calculate all the related costs. Inevitably, the latter compensation system raises issues connected with longevity, the average duration of different types of dental treatments, and the average treatment costs not granted by the national health services (as mostly they are not in Italy). Assessors can experience great difficulty in foreseeing what will happen in future decades of that subject's life, first and foremost, because scientific evidence or statistical data describe the "mean" subject or the "mean" treatment or the average cost of dental treatment, but nothing can predict the future of one single individual, his/her duration of life, or the treatments he or she will need. In Italy the expectation of life is calculated on data provided for male and female subjects by the National Institute of Statistics, but of course if a male is supposed to live up to 85 years, this does not mean that he will really live exactly 85 years. Some scientific evidence supports criteria for calculating the average duration of dental treatments that are assumed to be 6–7 years for fillings; 8 years, dentures; and 10–12, crowns; and a renewal is needed when subject is aged <40 years for implants.

26.4 Qualifications of a Medicolegal Expert

A discussion about the qualifications of an expert who evaluates dental damage requires preliminary considerations about a dentist's activity. The European Union (EU) Directive 78/687 in 1978 recognized the profession of dentist at a European level, reserving to dental practitioners some specific diagnostic and therapeutic activities such as the diagnosis (plus prevention and treatment) of anomalies and diseases of the teeth, mouth, and related tissues. This EU law recognized that medicine and dentistry are two different healthcare professions, limiting both to their specific area of comptence so that a physician cannot perform dentistry and vice versa. In addition to the legally established separation between the two professions in the EU, the traditional differences in terms of formal qualification and training have collocated the diagnosis of dental pathologies into the competence area of the dentist in an undisputed way when clinical activity is considered. Conversely, when the diagnostic ascertainment of dental and oral affections is required for medicolegal purposes, a dentist's opinion is not always requested as it should be. A recent survey of the International Organization for Forensic Odonto-Stomatology (IOFOS—not yet published) reported that in most EU countries as well as Australia, New Zealand, and the USA, the medicolegal evaluation of dental or oral injuries and the severity of impairment and necessary treatments are generally provided by dentists who are specifically trained in the medicolegal field and/or serve as forensic odontologists in different areas (crime, violence, body identification, etc). In some countries, such medicolegal assessment of oral lesions or impairments can alternatively be provided by non-dentist assessors such as specialists in legal medicine or merely physicians. For instance, in Italy, specialists in legal medicine or physicians who practice legal medicine, even without a postgraduate course of specialization, may evaluate dental impairments, especially when a plan for dental treatment has been provided by the treating dental practitioner and when the patient has been injured due to an accident (car, domestic, etc). The position that a non-dentist may perform an oral and dental visit of an individual exhibiting symptoms and provide a diagnosis and prognosis is highly questionable, since this activity is reserved to dentists according to Italian law, and some disciplinary issues have already been raised. According to the Motor Accidents Authority of Australia, minor dental injuries (chipped or cracked teeth, the loss of one tooth) may be handled by a non-dentist assessor. Non-dentist assessors are medically trained MAS (Medical Assessment Service) assessors (excluding psychiatrists) who do not possess formal training in the area of dentistry but have successfully undertaken training offered by the MAS and have passed an examination in relation to the assessment of minor dental injuries. In Canada the Ontario Insurance Act 34/10 provides that at least the request of dental treatments must be filled in by a dentist: "A claim for dental goods or services completed and signed by a dentist and in the form approved by the Ontario Dental Association is deemed to be a treatment and assessment plan that satisfies the requirements . . .."

In addition to the formal and legally provided limitations to activities of non-dentists but medically trained assessors, although it is generally deemed that oral or dental pathologies should appropriately undergo diagnosis and care provided by a dentist, the diagnostic ascertainment of dental impairments and medicolegal evaluation of related damages eligible for compensation should also involve a dentist. Proceeding in medicolegal assessment of dental impairments without the adequate contribution of a dentist can result in a demanding and frustrating experience for a non-dentist assessor who must face the very specific issues of dental nomenclature, treatment glossary, evaluation about dental treatment alternatives, costs, average duration and diverse amending capacity, difficulties in ascertaining some oral symptoms (pain) or in prognostic evaluations of traumatic injuries and in growing children, etc. However, medicolegal ascertainment and activity generally require specific qualifications and training that can be of legitimate concern for most dental practitioners. In fact, in most countries, there are no specific postgraduate courses to provide specific education in the medicolegal field for dentists. Often those involved as experts in judicial trials or as insurance advisors have mixed qualifications and experience, depending on the specific rules that regulate different fields of the expert's activity (the courts, insurance companies, etc.) in different countries. Hence if dental lesions or impairments should be ascertained and assessed by dentists or forensic odontologists, these are supposed to provide the same medicolegal "performance" requested of a medicolegal expert or specialist, in terms of appropriateness of the ascertainment procedures and well-addressed answers to fulfill the legal or insurance needs. Providing a medicolegal opinion in dental cases can be a highly demanding and challenging activity if done by someone who is not specifically qualified and trained as a dentist or not acquainted with the legal requirements, the medicolegal methodology, and forensic activity at large. In this sense, dentists who serve as court experts or insurance advisors should seek specific education and training and become properly qualified and acquainted with medicolegal issues, the various legal frameworks, insurance contracts, and management of claims. Furthermore, when a dentist is required to serve in cases of dental litigation, the possible composition of a dispute through mixed approaches that are alternative to a court trial often requires that the experts/advisors be familiar with the adjudicative system as well as alternative procedures (mediation, conciliation, e.g.) available for conflict resolution.

Below are listed some general bibliographic sources useful to deepen the issue. They are not reported within the text as they are no cited references.

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