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Dental Insurance Overview

Insuring dental treatment requires a different management approach to other health insurance because it is difficult to differentiate between oral health related treatment and life style treatment. The latter being uninsurable because it is elective rather than necessary. For example, an elective decision to have a tooth crowned to make it look nicer is completely different to a decision to crown a tooth that has been fractured due to an accident. Yet the treatment and therefore the claim is the same.

Dental insurance risk is driven by the provider of service rather than by circumstance and therefore dental insurance needs strict, purpose built management.

Another marked difference is that there is a steady flow of insured events right throughout the year with most insureds making at least one claim.

Administration of dental claims is an active business. In addition to that there is a bewildering array of dental treatments which can be claimed for and which must be adjudicated and mapped to benefit structures.

Administration complexity notwithstanding, the reason for the spectacular losses experienced by some dental insurance schemes in the past, is the failure to include clinical risk management as part of the already complicated administration process.

Denis has specialised in the risk management of dental claims for over 15 years and has a track record of bringing loss ratios back within budget parameters and keeping them there.

When administration functions of an existing dental insurance book are transferred to Denis, there is an immediate reduction in the average claims value, as much as 20% in some schemes.

This saving is due to the integrated clinical rules which prevent payment of claims which are incorrect, fraudulent or inappropriate when compared with the patient history or the scheme benefit set.
What does Denis UK Offer?

Denis UK Limited is a Third Party Administrator specialising in dental insurance.

Our primary and comparatively rare skill is the risk management of dental claims by applying computerised rules of various types to each item on a dental claim.

These rules ensure that insurers, underwriters or health trust managers do not over pay on dental claims (see Denis System below).

Over a number of years we have built up complimentary skills to enable us to do high volume claim processing and all the related services required to administer dental insurance policies as well as the required systems and licensing to process direct debits.

We have a long standing relationship with Citibank which allows us to make claim payments in all areas where Citibank is active.

We will engage with parties interested in managing dental risk and provide whatever level of service is appropriate to that party (see Denis Services below).
About Denis

Denis is an acronym for “Dental Information Systems” and the company was started in 1997 in Cape Town South Africa by a group of dentists. The original business concept had been to create a computer system that could analyse dental claims in order to detect and eliminate fraud. This system took an electronic feed from an insurance administrator and appended a status to a dental claim when an anomaly was detected. The claims were then returned to the administrator for further processing.

This anti-fraud system soon developed into a full administration system to process dental claims and once that was perfected the company started the full processing of dental claims and management of dental insurance policies.

The clinical information in the system grew rapidly and with proper analysis it was clear that a deep understanding of dental risk was being developed and by 2003 Denis entered into the first risk based contract with a South African Medical Scheme.

The outsourced risk business model grew and continues to dominate the South African dental landscape in 2014 with almost 1.5 million lives under risk management.

Denis opened an office in Basingstoke Hampshire in 2007 and established Denis UK Limited, a company registered in the United Kingdom.

The bespoke Denis system was installed on servers with databases independent of the South African systems, in an approved data centre in Byfleet, Surrey.

Denis UK Limited is a wholly owned subsidiary of Denis SA which in turn is a wholly owned subsidiary of EOH Limited a computer service and outsourcing company listed on the Johannesburg Stock Exchange. Denis UK operates independently but with oversight from Cape Town.

Denis UK has three directors: Gareth Hayton (CEO), Paul Leroy and David Carolus. Caroline Botha is the company secretary and General Manager.
The Denis System

At the core of all the various business models we offer is the Denis Tooth Chart. This is a digital representation of the mouth with each tooth and each area of gum and oral cavity numerically identified. As and when a diagnosis is made or treatment is rendered (as detailed in a claim) this information is recorded on the Tooth Chart.

Each diagnosis or treatment is linked to the date and the service provider so it is possible to do a multitude of analyses and interventions which allow identification of inappropriate, incorrect or fraudulent claims.

Personal Dental Record

Each insured individual has a personal dental record in the Denis system that keeps track of each treatment on each tooth. It also keeps track of all visits and other records such as x-rays and referrals.

Dental Claims

A typical dental claim is a collection of any number claim lines. Each line will identify a treatment a date and the claimed value. If the treatment is on a specific tooth, the tooth will also be identified and captured in the system.

The average number of lines per claim is 5.

The average course of treatment involves 2.2 visits to the dentist – i.e. 2.2 separate appointments. The first appointment is usually for the check up and the subsequent visits are for treatments that may be required. For each visit a claim may be created or the insured might decide to wait until the course of treatment is complete and then submit a claim.

In some insurance policies the dentists may claim directly from the insurer and in such cases the dentists upload claim data electronically on a daily or even real time basis. On the other hand the patient (the insured) will submit a claim in a paper format.

Each claim captured in the Denis system is verified by all the electronic rules set up in the system (the rules are configurable). The rule types are divided into clinical and financial.

Clinical Interventions

Dental science has created many ways for a modern dentist to repair teeth and gums. In fact in some countries there are well over 1000 individual dental services codes that define each possible treatment – this may seem
counterintuitive as there are in the main only two diseases that dentist treat – tooth decay and gum disease. To the uninitiated claims assessor it is impossible to determine which claim lines are valid and which are not when the permutations of claimed treatments that can be used are so enormous. This is where Denis system clinical rules are applied.

In the claim verification process each claim line looks at the rest of the current claim and also at the patient history in the system. The rules in the system identify any claim line that is outside of the rule parameters and deals with the line in a way set by the specific rule.

As a crude example of a ‘clinical rule’, consider a tooth that has been extracted at some time in the past and which has been recorded in the system. It is clearly impossible to place a filling on a tooth that is not there. If a claim for a filling is received for a tooth that has been previously extracted, this is identified by the rules and the claim line automatically failed in the system. Far more common than this crude example is where a tooth is treated and retreated but with different types of material each time. The insurance question is why would the insurer (or insured) pay for the same things twice?

Another typical rule in dental insurance plans is that treatment is expected to last for a certain amount of time. For example a crown may have an expected life span of say 10 years. Insurance policies might limit a crown to being done once in say 5 years. How does a claims assessor manage this with large volumes of claims? A crown could be on any one of the insured member’s teeth. The Denis system will have a date stamped record of a crown on a specified tooth. The system rule measures the date of a new crown against the period the existing one has been in place. If the existing crown has not been in place for the required period, the new claim is failed.

Naturally it is imperative to describe such rules in the dental policy.

The United Kingdom has a unique problem in that it is quite common to receive a claim for an NHS patient charge and a private charge for the same treatment. The Denis system caters for this in that certain treatments can be made “incompatible” with others, thus ensuring that only the correct one is paid.

*Claim errors are usually minor and are usually simple administration mistakes. However, since claims are so numerous and multiplied by at least 5 lines per claim, these errors can mount up to a significant loss to the scheme.*
**Financial Interventions**

Most insurance plans have some sort of financial claim limit and these can take on various formats. For example emergency treatments may be limited to an amount separately from routine treatment. Crowns and other expensive treatments may be restricted to their own specified limits.

Grouping of service procedure codes or clinical treatment descriptions (if no coding sets exist) in the Denis system allows category specified financial limits to be set which are cast in stone in terms of the policy. Any number of unique categories can be defined.

Some dental insurance policies define their benefit structures as maximum quantities of treatments. A common example of this is a maximum number of fillings per person per policy year. The Denis system allows such quantities to be set on either a single treatment or groups of treatments.

Each treatment can also be limited to a specified amount or to a percentage of the claimed amount.

*The Denis system can therefore be configured to accommodate a wide range of policy set-ups and the end result is a system that processes claims with a high degree of accuracy and eliminates the errors and abuse so common in dental insurance claiming.*
The future of managing dental health of an insured population is likely to focus more on the measurement of long term health outcomes rather than just the activity of fixing teeth. This approach reduces the moral hazard of paying for activity rather than results.

The Denis system can be used to measure the life span of any dental treatment in that re-treatment of a tooth generates an “end date” for any previous treatment on that tooth.

The reason for re-treating a tooth also needs to be identified to get a full picture of success or otherwise of the treatment and this reason is found in the diagnosis which in some schemes is mandatory for claiming.

The Denis system currently uses the ICD-10 diagnostic coding developed by the World Health Organisation.

**Information Collation**

The value of big data can be seen in the quality of decisions that can be made based on it.

The longevity of all treatment types can be aggregated over any grouping of patients and indeed specific teeth and regions of the oral cavity. One practice can be compared to another and such comparisons in the relative efficacy of treatment becomes meaningful when other demographic factors such as age and geographic location of the patients are included in the analysis. Such demographic analysis is built into the Denis system and results in a profile of treatment efficacy per dentist.

Treatment efficacy profiling together with patient reported outcomes becomes the core of outcomes based measurement and ultimately outcomes based remuneration structures.
Denis UK Services

PRODUCT DEVELOPMENT

With many different corporate plans under management in the UK, Ireland and South Africa, Denis has seen a large variety of dental insurance policy structures. There are quite a number of formats a dental plan can take and knowledge of the target market will help define the most appropriate plan design.

RISK ANALYSIS

For existing schemes we offer a service where claim data, (in an acceptable format) can be run through the Denis system to analyse the extent of losses.

PRICING

With almost 1.5 million insureds under various forms of management and well over 30 million lines of claim data, Denis is able to assist with actuarial analysis of claims and to project likely risk rates for dental plans.

SYSTEM PROVISION AND SUPPORT

Some insurance administrators prefer to keep control of member administration and claims payment. If such an administrator saw the need for advanced dental management, Denis UK is able to supply the Denis system for claims capture and analysis with a feedback loop to the administrator system to allow for claim payment and member communication from the primary system.

FULL THIRD PARTY ADMINISTRATION SERVICES

Denis UK has a full call centre capability at the Basingstoke offices and his able to offer full third party administration services including direct debit collection, member fulfilment and web sales portals.
Corporate Plans Administered by Denis in the UK

BDO
Black & Decker
British American Tobacco
Cable & Wireless Communications
Carlin Music
Civil Aviation Authority
Global Marine
Global Risk Consultants
Heinz
Johnson & Johnson
Laura Ashley
Lloyds Register
Marsh
Police Federation Derbyshire
Police Federation Devon and Cornwall
Police Federation Hampshire
Sharp Telecommunications
Virgin Media
Vodafone
Wells & Young’s Ltd
Wrigley’s

Individual Plans Administered by Denis in the UK

Boots Dental Plan
Columbus Dental Plan

Current TPA Contracts held by Denis UK

Hardy
Great Lakes UK
Amlin
PTI Insurance Company
Healix Insurance Services

Clients in the Republic of Ireland

Astrenska