February 2019 Management case study examination

Pre-seen material

CROWNCARE

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Introduction

Crowncare is an unquoted company that operates 30 dental practices in Capital City and its surrounding towns. Capital City is the largest city in Varentia and has a population of 2 million.

Varentia is a developed country with a relatively high standard of living. The population is well educated and aware of the need to maintain good health. The rate of unemployment is generally low and the Varentian government provides extensive healthcare, paid for through taxes.

Varentia's currency is the V$. Companies are required to prepare their financial statements in accordance with IFRS.

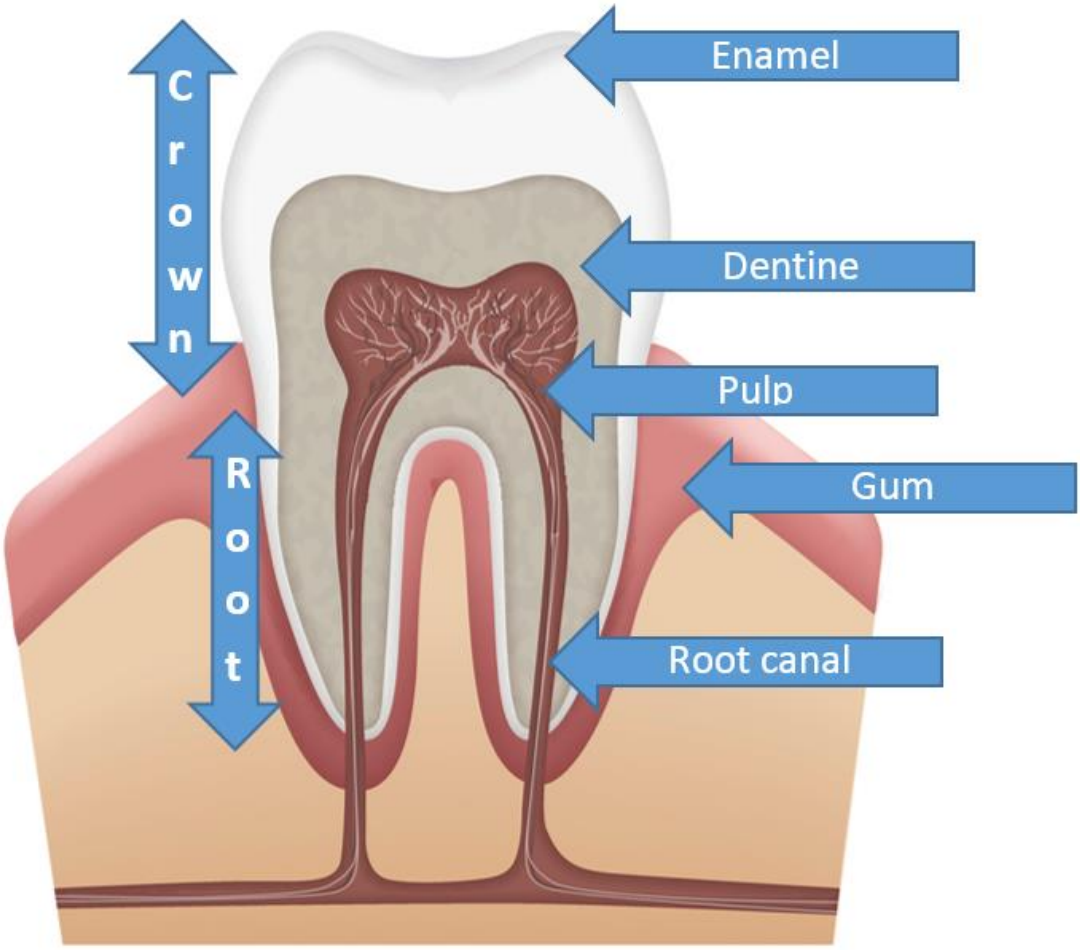
You are a financial manager in Crowncare's head office. Your primary responsibilities are associated with management accounting. You report to the senior financial manager, who reports directly to the finance director.

Dentistry

Dentistry is a branch of medicine that is devoted to the prevention of diseases in the mouth and jaw. Dentistry is primarily associated with the treatment of damaged and diseased teeth and gums. Bacteria in the mouth produce acids that can cause teeth to decay. The bacteria can also harm the gums, causing gum disease. Dentistry encompasses a range of professional disciplines associated with improving dental health.

Children are born without teeth. They grow a temporary set of 20 teeth between the ages of six months and three years. Those teeth remain in place until they are replaced by a permanent set of 32 adult teeth.

A tooth comprises a hard outer layer of enamel, a softer inner core of dentine and a sensitive inner pulp, containing blood vessels and nerves. Teeth are held in place by the gums and so good oral health relies on the condition of both the teeth and gums. The crown is the section of tooth above the gumline. The root is below the gumline. The root canal carries nerves and blood vessels into the body.



Bacteria in the mouth react with food to create acid that can erode the enamel and cause it to decay. If left untreated, the erosion can create cavities (sometimes called 'caries') in the

enamel. Once the enamel has been breached, the acid will erode the dentine very quickly. If the cavity reaches the pulp, then the nerves there will be stimulated, causing toothache.

Bacteria can also accumulate in the gums, particularly if food works its way into the gumline, where the crown of the tooth meets the gum. The gum can then become infected, which can lead to loose teeth that may have to be removed in extreme cases.

Good oral hygiene is the key to preserving both teeth and gums. The abrasive action of brushing teeth with toothpaste removes the plaque created by bacteria. Toothpaste is alkaline, so it neutralises the acid in the mouth. Toothpaste also contains fluoride, which is both anti-bacterial and can bond to the enamel to repair some of the damage caused by erosion. Brushing also stimulates blood flow to the gums and removes food and bacteria and so reduces the risk of gum disease.

Teeth can break because of wear and tear. The human jaw can exert a great deal of pressure when biting or chewing and teeth can become damaged or broken. Food containing hard items, such as seeds, can increase the risk of breakage.

Dentistry generally focusses on prevention. Regular checks can identify problems before they become serious. For example, small cavities can be filled more easily with less risk of damaging the tooth in the process. Patients can also be given specific advice on ways in which their oral hygiene might be improved. Dentistry can also have a cosmetic aspect. If desired, dentists can straighten crooked teeth or make teeth whiter.

Patients who lose some or all of their adult teeth can be fitted with false teeth. These can take the form of removable dentures that are worn during the day to help with chewing, speaking and to prevent the appearance of bare gums. Alternatively, bridges are dentures that are fixed in place between healthy teeth. Implants are dentures that have artificial roots that are implanted into patients' jawbones and, so, behave like real teeth.

Crowncare's history

Crowncare was founded in 1947 by Ben Winn and Tom O'Malley, both dentists. They established a surgery in the Eston suburb of Capital City. The Varentian Health Service (VHS) had just been established by the government. The VHS introduced free health care, funded through taxation. Previously, patients had to pay for their own medical care, including dentistry.

Varentian dental practices have always been commercial businesses. Under the newly established VHS scheme, dentists carried out the work that was required and submitted claims to the VHS.

Crowncare grew steadily for more than 30 years. The founders had set themselves the challenge of offering the best quality care in Capital City and they established an excellent reputation. By 1955, they had opened a second surgery in the Handel suburb of Capital City and patient numbers at both locations grew rapidly.

In 1980, Crowncare was incorporated as a company. By then it had 11 partners and 7 surgeries that were spread across Capital City. The 11 partners converted the partnership into a limited company and shared the equity.

By 1990, many dentists were becoming increasingly unhappy with the VHS. Dentistry had increased in sophistication since the introduction of free dental care in the 1940s. The VHS was forced to specify the treatments that it would pay for, otherwise the cost to the taxpayer would be prohibitive. Dentists were forced to ask patients for supplementary payments for enhanced or discretionary work. Patients who could not, or would not, make such payments were left with the limited treatments available on the VHS. For example, cavities had generally been filled with mercury amalgam that was silver in colour and could be seen when the patients smiled. By 1990, it was possible to use a translucent polymer resin that was almost invisible, but was more expensive and unavailable on the VHS.

In 1990, Crowncare started to promote private dental insurance that was becoming readily available to patients. In return for a monthly premium, patients were entitled to four hygienist appointments and two check-ups every year. Most treatment that was required was covered by the policy and there were very few restrictions on the use of preventive and restorative treatments. For example, dentists could use polymer resin fillings rather than mercury amalgam.

By 1995, Crowncare had stopped accepting new VHS patients and had persuaded its existing patients to purchase dental insurance, or to move to a practice that offered treatment on the VHS.

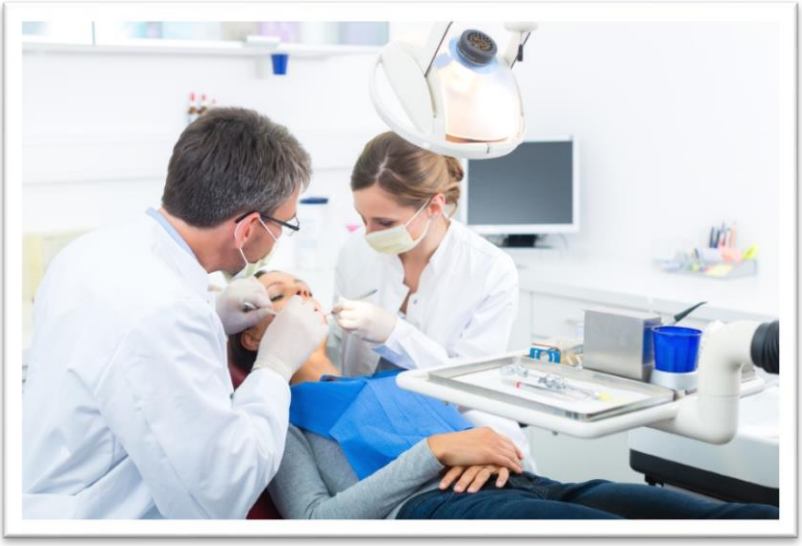
The company continued to grow, acquiring further dental practices. It presently owns 30 practices, all in Capital City and its surrounding towns. Each practice is incorporated as a wholly-owned subsidiary company of the Crowncare Group. The group employs a total of 105 dentists, 40 of whom own shares in the parent company. It also employs 110 dental nurses, 96 hygienists and 60 reception and administrative staff.

Each of Crowncare's practices has an average of 5,250 registered patients. Each practice has a natural catchment area: in other words, most patients register with a nearby dentist. There is, however, nothing to prevent a patient from registering with any dentist, regardless of location.

Occupational groups

Dentists and dental nurses

Dentists generally conduct half-yearly check-ups of patients' teeth and gums. A cavity takes roughly six months to develop, so a regular check usually means that any decay or other damage is detected before it becomes a serious problem.



Cavities are usually treated by drilling into the tooth to remove the decayed part and to provide a suitable foundation for filling. The resulting hole is then filled with a material such as mercury amalgam or a polymer resin.

If the damage to the tooth is extensive, the dentist may restore the tooth by fitting an artificial crown. Crowns are generally made from metal or from porcelain. As a last resort, if the tooth is beyond repair, the dentist may have to extract it. Dentists can subsequently fit their patients with false teeth to fill the spaces left by extractions.

Dentists are assisted by dental nurses. Typically, the dentist and the dental nurse will sit on either side of the patient and will work together. For example, the nurse will use a vacuum tube to aspirate the patient's mouth, to clear away the water sprayed by the dentist's drill.

Hygienists

Hygienists advise patients on oral hygiene and conduct regular preventive treatment to augment brushing and flossing. Hygienists are trained and equipped to scrape away dental plaque that has accumulated since the patient's last appointment.

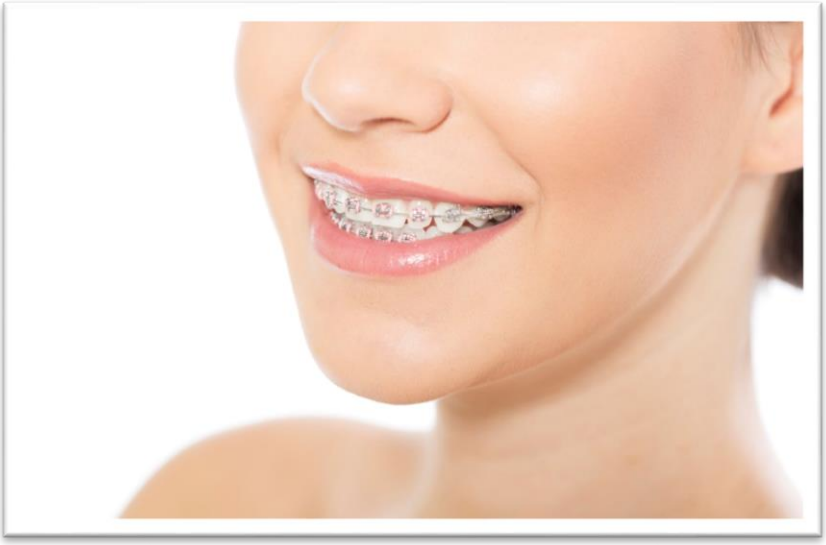
Hygienists also advise patients on specific ways in which they might improve their cleaning routines, such as identifying neglected corners where problems might arise. Good oral hygiene reduces the accumulation of plaque, but cannot eliminate it entirely.

Endodontists

Endodontists are dentists who have specialised in treating problems that affect the root canal, the channel inside the tooth that carries blood and nerves. The root canal can become infected, infecting the surrounding gum and causing extreme pain. The body's immune system cannot deal with such infections. Endodontists specialise in root canal surgery, which involves cleaning out the infection and filling the root canal to prevent any recurrence.

Root canal treatment can vary in complexity. Most dentists will carry out treatments that are within their capability and will refer more difficult cases to specialist endodontists.

Orthodontists



Orthodontists specialise in straightening teeth that have grown in crooked. That usually involves fitting patients with braces that are sprung so that they twist the teeth into their correct positions.

Again, simpler cases may be handled by dentists, who will then refer more complicated cases to specialist orthodontists.

Dental technicians

Dental technicians manufacture bespoke items to dentists' specifications. For example, if the dentist needs to fit a crown to a damaged tooth, the dentist will prepare the tooth for treatment and will provide the technician with a detailed model and other information to enable the replacement crown to be made in exactly the right shape and colour, so that it fits correctly and looks real. The dentist will then fit the crown to the prepared tooth.

Dental technicians also make dentures, implants, bridges and braces, all to dentists' specifications.

Receptionists, practice administrators and managers

Reception staff organise patient appointments, both in terms of scheduling visits to dentists and hygienists, and in terms of checking in patients as they arrive.

There are further administrative processes, such as billing for treatment and ordering consumables used in dental surgery. That usually requires a small adminsitrative team.

Larger practices have a practice manager, who is responsible for all non-clinical matters associated with the business side of running the practice.

Training

Dentists require five years' study at dental school. Admission requirements are rigorous. The course involves both academic examinations and practical tests. After graduation, junior dentists are required to spend a further year working under the direct supervision of an experienced dentist.

Once qualified, dentists are admitted to the Varentian Dental Council (VDC), which is a professional body that supervises practitioners. Retaining membership requires ongoing training and updating in the form of continuing professional development.

Dentists who wish to specialise as endodontists or orthodontists must complete a further period of postgraduate study.

Dentists are closely regulated because their work can have a significant impact on the health and welfare of their patients. Apart from the actual dental treatment itself, dentists can prescribe a range of pharmaceuticals, such as antibiotics for the treatment of gum diseases. They also have access to local anaesthetics that are used to temporarily numb patients' mouths, before potentially painful procedures such as fillings and extractions.

Dental nurses and hygienists must also register with the VDC, having completed both a two-year diploma and a suitable period of practical experience while working under supervision. They are, therefore, qualified professionals who are subject to the supervision of the same body that supervises dentists.

Dental technicians must also complete a formal qualification and register with the VDC. Most technicians complete a three-year degree programme before registering.

Dental practices

Dentists usually work for dental practices, which are essentially businesses. Each practice rents or owns premises and purchases the necessary equipment. These premises will generally have a waiting area for patients and a surgery for each dentist and each hygienist.

Dental surgeries require a considerable amount of expensive equipment, including:

- Patient chair – an adjustable reclining chair that can hold the patient safely and securely in a position that gives the dentist and dental nurse access so that they can work in reasonable comfort.
- Lighting – dental lighting can illuminate the patient's mouth to enable the dentist to work safely, without dazzling the patient.
- Utility equipment – provides the compressed air to power tools such as drills, dental vacuums, and air/water syringes.
- Handpieces – these are basically very precise drills that can be used to drill away decayed tooth and create a solid foundation for filling.
- Sterilisation equipment – all equipment must be sterilised after use in order to prevent cross-infection between patients.
- X-ray equipment – dentists use x-rays to check for damaged teeth and gum infections.
- Hand tools – such as dental probes, pliers for extractions, and files for cleaning root canals.

Hygienists' surgeries also require a patient chair, lighting and other equipment. Hygienists have powered handpieces that use brushes or ultrasonic vibration to clean teeth. They also require hand tools. Hygienists must also have sterilisation equipment.

Dental practices operate as sole traders, partnerships or limited companies. The dentists who work there may not necessarily have any ownership interest and could simply be employed by the practice. Most practices have more than one dentist because it is generally uneconomic to run a practice with a single dentist, given the need to staff the reception area and manage the practice administration.

Paying for dental care

Patients must register with a dental practice before they can receive treatment. Patients can register with any practice, although the practice has discretion over acceptance and can refuse for any reason. It is a simple matter to re-register with a different practice and a practice can terminate a patient's registration at any time.

There are three main ways in which dental treatment can be paid for:

- The VHS pays for basic health care for all citizens. Patients who wish to receive free treatment under this arrangement must register with a dentist as a VHS patient. Once registered, the dentists invoice the VHS for check-ups and any treatment provided under the scheme. This arrangement is unpopular with dentists, because the VHS restricts them to relatively basic treatments and pays a restricted rate for those treatments that are permitted. Many dental practices refuse to accept VHS patients and those who do are generally located in poorer areas where patients cannot afford dental health insurance. The VHS provides a comprehensive package of dental care to all children and young people up to and including the age of 16. This is adequate for the care of the first set of teeth. The scheme is organised in cooperation with the Varentian Education Service and so there is no need for young people to register with dentists until they reach their 17th birthdays.

- Patients can buy dental health insurance that covers the cost of regular preventive care, such as check-ups and hygienist visits, and also the cost of most treatments that the dentist deems necessary. Generally, these policies cover everything except dental implants, which are too expensive to include in the policy. Patients may also have to pay a contribution towards more elaborate crowns and cosmetic treatments. Most dentists welcome patients who have these policies. Dental practices are required to use a single insurance provider. For example, Crowncare has recommended National Dental to its patients since 2006. Crowncare patients who wish to have dental insurance must use National Dental.

- Patients can simply pay for all treatments as they go. That can prove expensive if an unexpected treatment becomes necessary. It may also discourage patients from making routine visits for check-ups and hygienist appointments, because they have to be paid for and, so, their teeth and gums may be at greater risk through neglect.

Crowncare's group strategy and structure

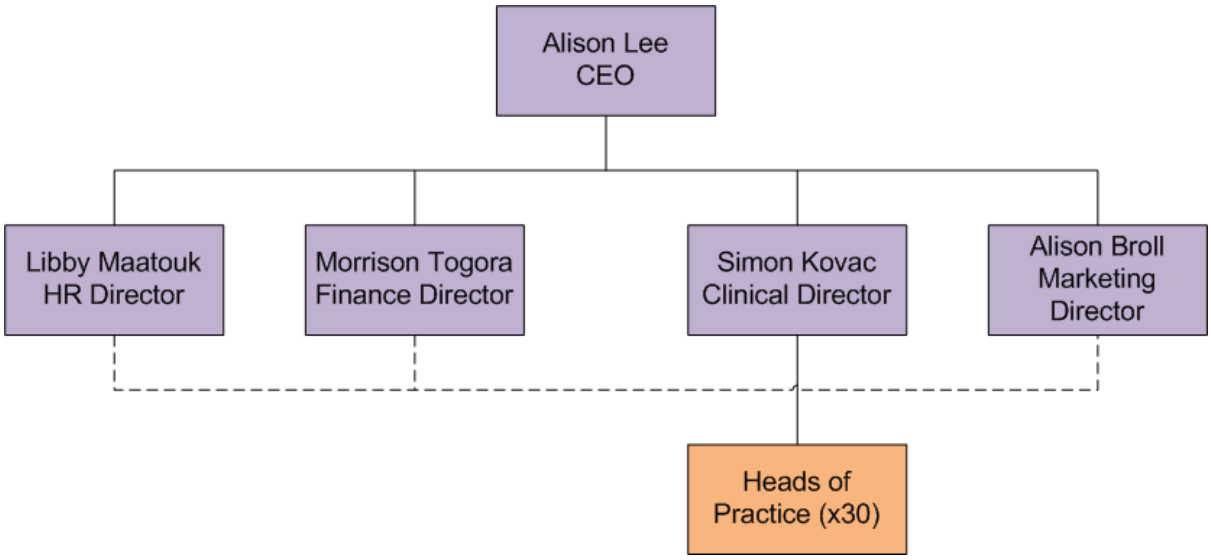
Crowncare has grown to become the largest provider of dental care in its catchment area of Capital City. In recent years, it has expanded primarily through the acquisition of existing dental practices in areas in which it lacked a presence.

Crowncare aims to attract and retain patients through offering a high-quality service, both in terms of clinical excellence and presentation. Clinical excellence is established by recruiting well-qualified dentists, nurses and hygienists. Crowncare pays above average salaries in order to attract good staff. It also invests heavily in the latest equipment and in ongoing training, so professional staff are motivated by the opportunity to practise the latest techniques.

Crowncare also invests in the creation of a welcoming and professional service. All of its premises have attractive reception and waiting areas. Staff are trained to greet patients and to keep them informed of waiting times if their appointments may be delayed for any reason.

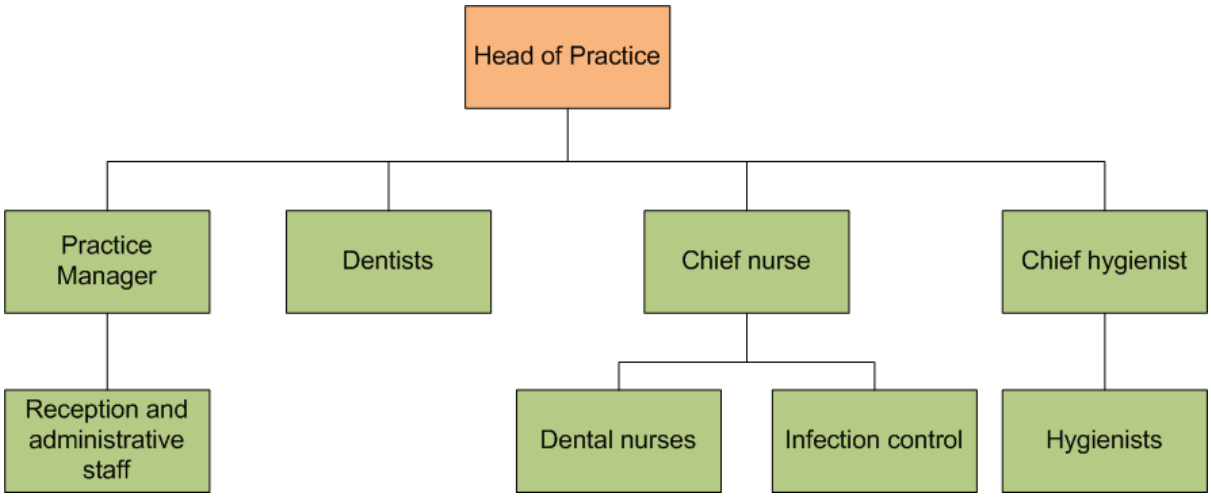
Offering high-quality preventive care offers two main benefits to Crowncare. Firstly, patients appreciate that they require fewer treatments and that the health of their teeth and gums is improved. Secondly, the practices can cope with larger patient numbers, because many require little more than regular check-ups and hygienist appointments. These simple consultations yield a significant amount of revenue for every hour of surgery time, even if they are relatively inexpensive in comparison to, say, fitting a bridge or an implant.

Management structure



All of Crowncare's directors and heads of practice are qualified dentists. Only Alison Lee and Simon Kovac are full-time directors. The other directors and all heads of practice are expected to spend 80% of their time on clinical work. The directors of HR, finance and marketing are each supported by a senior manager who is qualified and experienced in the relevant area.

Each practice is organised as follows:



The head of practice is responsible for the day to day supervision of the practice. That is in addition to maintaining a full caseload of patients. Each head of practice is expected to devote a total of approximately one working day per week to these managerial responsibilities and commit to an 80% workload in terms of treating patients.

The chief nurse is responsible for the general supervision of the dental nurses, which is not a particularly onerous responsibility, because each nurse will work closely with a designated dentist. Each practice also has a designated nurse who takes responsibility for ensuring that high standards of infection control are maintained. These supervisory duties are combined with normal clinical duties. All clinical staff are required to ensure that sterilisation procedures are complied with at all times so that neither staff nor patients are at risk from cross-infection.

The chief hygienist's role is similar to that of the chief nurse. They supervise the other hygienists and are available to advise on new procedures or any problems associated with patient care.

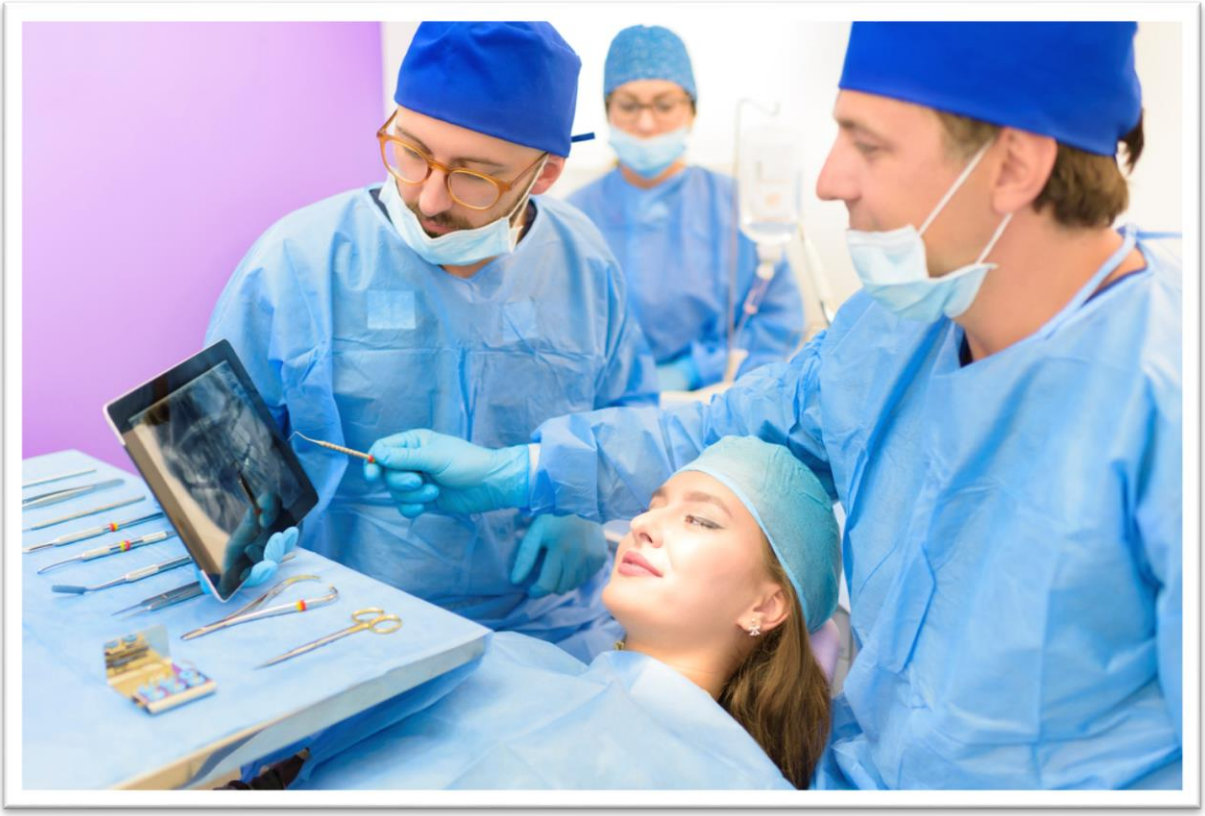
The practice manager is responsible for non-clinical aspects of running the practice, including reception and accounting.

Information technology

Crowncare makes extensive use of IT in the management of all aspects of its operations. The company operates in a paperless environment.

The company uses a specialised package that maintains patient records and facilitates communication within the practice. The package maintains a diary for dentists and hygienists that enables appointments to be scheduled efficiently. When patients arrive at reception, they are logged into the system and a screen in the appropriate dentist's or hygienist's surgery shows that the patient is waiting for treatment.

The screen is updated when the patient is taken into the surgery and the records are updated to show the results of the examination. For example, gum health is evaluated on a four-point scale where 0 indicates very healthy gums and 3 indicates active gum disease. The scores are updated during every dental or hygienist appointment. The system also records any treatments that are provided, along with any notes to be reviewed during the next visit. For example, the dentist may be concerned that a filling is becoming worn and will have to be replaced in the foreseeable future.



The IT system is linked to the X-ray equipment in each dentist's surgery, which enables the dentist to refer back to old X-rays, as well as avoiding the financial and environmental costs associated with printing out film.

At the conclusion of each appointment, the receptionist is informed that the patient will be arranging a further appointment, which may be to continue a course of treatment, or simply to return for a routine check-up or hygienist visit. The system also collates billing details, enabling the practice manager to invoice the insurer or the patient, as appropriate, for the work that has been completed. Insurance policies cover most preventive treatment and clinical work, but

patients may elect to have cosmetic work done, such as teeth whitening, which is not covered by insurance.

The practice manager can use the system to track statistics such as the number of missed appointments, when patients failed to attend, the number of late arrivals and the average waiting time between the scheduled start time of each appointment and the time that the patient was called into the surgery. These statistics can be analysed over any chosen timeframe and can be broken down by dentist or hygienist.

The software package used by Crowncare tracks the financial aspects of each patient's course of treatment and determines the appropriate charge on the basis of inputs made by the dental nurse during each appointment. For example, if a tooth is treated with a white filling, then the nurse will update the patient's dental records and that will automatically trigger a charge to the patient's account. If the treatment is covered by dental insurance, then the system will automatically invoice the insurer. If the treatment is not covered by insurance, then the patient is billed and usually settles the account with the reception staff once the treatment has concluded.

Furthermore, the system records a treatment plan, which carries forward any work that the dentist will do during future appointments. For example, if three cavities are noted during a routine examination, the dental nurse will indicate the types of fillings that are required and the number of appointments that the patient should make for the work to be undertaken. Again, this information is forwarded to the reception staff, so that any appointments can be made in person and the patients can be given an estimate of any charges that they will have to pay.

Competition

Crowncare is by far the largest dental provider in its catchment area, which includes Capital City and its surrounding region. Crowncare is the only local dental provider to have more than three practices, apart from Smilebrite, which has five practices and offers a mix of private and VHS treatments.

Roughly 45% of the other dentists in Capital City treat only private patients who pay for their own treatment or have dental insurance. 25% treat a mixture of VHS and private patients and 30% treat VHS patients only.

Crowncare's revenues continue to grow, partly through the promotion of high-margin treatments, such as dental implants, and partly through the acquisition of other practices. Most of Crowncare's practices have little capacity for additional patients, although there is a need to attract new patients to replace those lost through relocation or aging.

Ownership

The 11 founding shareholders have all retired and have sold their equity to the dentists who replaced them. There are now 40 shareholders in total. When Crowncare acquires a new practice, it does so by exchanging shares in Crowncare for ownership of the business. The company requires that shares can be held only by qualified dentists who are actively engaged with the company. When shareholders retire, they sell their shares to a suitably qualified replacement, who has been interviewed by Crowncare's board.

Services offered and typical prices

	V$
Routine dental examination	95
Hygiene treatment	80
Amalgam filling	90
White polymer filling	120
Root canal treatment	350-450
Tooth extraction	98
Crown	300-400 + laboratory charges
Bridge	From 350 + laboratory charges
Discretionary treatments (not covered by dental insurance)	
Implant	From 3,000-4,500 for a single tooth
Dentures	From 450
Braces to straighten teeth	From 1,700
Teeth whitening	320

Dental insurance covers the cost of the dentist's time for preparation work and fitting of crowns and bridges. The insurance premium does not cover the fee charged by the dental laboratory for the manufacture of the items themselves. Where patients are uninsured, they have to pay for all treatments, including routine check-ups and hygienist appointments.

Some prices allow for a degree of discretion, to allow for the complexity of the work. Dentists must use their experience to take that into account when specifying the length of follow-on appointments and the costs of materials.

Dental insurance

Most of Crowncare's patients are insured by National Dental, a major insurance company based in Varentia. New patients are required to have a full dental examination, during which time the dentist charts any problems such as tooth loss, gum disease, fillings and crowns, before they are accepted. The dentist also checks that there are no existing problems with the patient's dental health. National Dental uses that information to predict the likely cost of work that the patient will need, and the patient is quoted a premium based on that prediction. The premium is adjusted in later years, if the work required by the patient changes.

National Dental pays for two dental examinations and four hygienist appointments every year. Patients must attend these routine preventive appointments or their policies will lapse. National Dental also pays for any dental work that the patient's dentist deems clinically necessary, such as fillings or extractions. More advanced treatments, such as replacement crowns, may require the patient to pay for the laboratory fees for the manufacture of the crown itself, but the dental charges for the preparation of the tooth and the fitting of the crown will be covered. Insurance cover also excludes the cost of dental implants and cosmetic treatments, because premiums would otherwise become unaffordable.

Roughly 90% of Crowncare's patients have dental insurance. The remainder must pay for dental examinations, hygienist visits and all treatment.

Patients are kept fully informed of any costs that they will have to pay for themselves. The IT system flags charges on the receptionist's screen, whilst the patient is making an appointment. Patients are encouraged to settle charges in advance of the work being carried out.

Dental laboratories

Crowncare relies on independent dental laboratories for its needs. Laboratories are essentially workshops that manufacture items that are used for replacement or restoration. These are almost always made to a very precise specification to meet the patient's needs and the dentist will usually undertake some of the preparatory work in the surgery, usually by giving the laboratory a model (usually referred to as an impression) of the patient's mouth and a detailed specification of the work that needs to be done.

Dentures are the simplest product made by a dental laboratory. They are false teeth that are used when patients lose some or all or their natural teeth. Generally, the dentist removes any damaged or diseased teeth and uses dental impression material to take an imprint of the patient's mouth and gums. The material sets to become an elastic solid, which the dentist sends to the laboratory. The technicians then make a set of dentures that fit perfectly and enable the patient to smile, eat and talk naturally.

Smaller gaps caused by lost teeth can be replaced by bridges. The dentist prepares the teeth on either side of the gap to accept the ends of the bridge. The dentist takes an impression of the gap and the gum and sends that to the laboratory. The technicians in the laboratory then make a bridge with false teeth that fit the space perfectly.

Dentists can replace the crown of a tooth by removing the natural crown and preparing the remaining root to accept a false crown. The dentist then takes an impression of the prepared root and has a replacement crown made in the laboratory. The crown can be made from gold or from porcelain. Porcelain crowns can be made in a wide variety of shades, so that they match the patient's remaining teeth. Whether gold or porcelain, the size and shape of the crown are very important, because the patient must be able to bite properly, which requires that the crown fits the prepared root exactly.

Dental laboratories also make the components of dental implants. If it is necessary to remove the whole tooth, including the roots, then the dentist can fit an implant as an alternative to dentures or bridges. The laboratory provides the dentist with three main components: the implant itself, which is effectively a bolt that is fixed into the patient's jawbone; an abutment, which is a titanium screw that is screwed into the bolt; and a porcelain crown, that completes the tooth and looks natural once it is in place. Naturally, the dentist must provide the laboratory with precise measurements and impressions for all three components.

Laboratories also make braces for patients who wish to straighten their teeth. These are basically springs that are attached to the teeth, with sufficient torsion to twist one or more of them into the desired position. The dentist provides the laboratory with the specifications and then fits the resulting brace to the patient.

Each of Crowncare's practices uses one or more local dental laboratories, chosen on the basis of quality as well as reliability. The human jaw exerts immense pressure when chewing and, so, anything that is flawed will break. Also, if the component does not fit correctly, then it could affect the patient's bite, which could cause discomfort and even damage healthy teeth. Most work done in laboratories also has a cosmetic aspect and the patient will be unhappy if, say, a crown is the wrong colour and looks unnatural.

Reliability must also be measured in terms of response times. Patients usually book appointments in advance and, so, it will be disruptive if an appointment has to be rescheduled at the last minute, because of overdue laboratory work.

Costing

Crowncare's IT system relies on a package that is designed to manage dental appointments and billings. The system is extremely flexible in terms of its ability to analyse revenues. For example, they can be broken down by practice, by dentist or by procedure.

The system is less flexible when it comes to tracking time and cost. Dentists, dental nurses and hygienists are recorded as 'productive' when they have a patient in the chair. Time is not broken down further, because appointments frequently involve two or more procedures (e.g. a filling and a crown preparation). Similarly, dentists spend part of every day corresponding with dental technicians, in order to have crowns and other items manufactured to precise requirements. That time is not tracked to specific patients or types of procedure.

Crowncare has a price list for most dental procedures. Dentists quote a fixed price in advance of conducting any work so that the patient knows how much it will cost, if some or all of the cost is not covered by their dental insurance. Most patients are insured, but insurance does not cover the cost of dental laboratory work, implants or discretionary cosmetic procedures. Any work undertaken by the laboratory is recharged to the patient at its cost to the practice, with Crowncare making its profit from the dental work associated with preparing and fixing the item.

The system does not permit Crowncare to break costs down by type of procedure. Time spent and the cost of consumables, such as filling materials and anaesthetic, would be difficult to track. Crowncare is not particularly concerned about that, because the company offers a wide range of services, each of which involves a relatively quick and simple procedures that takes only 10 or 20 minutes. Each dentist will see 25 or more patients on a typical day. Experience suggests that, if each dentist bills work to the value of V$2,900 per day, or roughly V$390 per hour, then the company will earn an acceptable profit.

Budget report

Budget report for the four months ended 31 Jan 2019	Actual	Budget	Variance
	V$000	V$000	V$000
Revenues			
Preventive			
Examinations	5,237	5,437	(200)
Hygiene	12,184	12,146	38
Restorative and cosmetic	15,140	15,108	32
Recharge of outsourced laboratory work	5,132	4,807	325
	37,693	37,498	195
Costs			
Outsourced laboratory work	(5,132)	(4,807)	(325)
Dental materials (fillings, anaesthetics, etc)	(6,423)	(6,395)	(28)
Salaries - dentists	(3,202)	(3,200)	(2)
Salaries - nurses	(1,503)	(1,497)	(6)
Salaries - hygienists	(1,370)	(1,359)	(11)
Salaries - receptionists and practice managers	(988)	(985)	(3)
Depreciation	(1,656)	(1,645)	(11)
Practice liability insurance	(433)	(433)	0
Heat, light and power	(279)	(275)	(4)
Property tax	(368)	(368)	0
VDC registration fees for professional staff	(55)	(55)	0
Cleaning	(92)	(89)	(3)
Training and CPD	(102)	(100)	(2)
Journal subscriptions	(8)	(8)	0
Advertising	(500)	(500)	0
Website maintenance	(10)	(10)	0
Telephone and internet	(323)	(320)	(3)
	(22,444)	(22,046)	(398)
Profit	15,249	15,452	(203)

Extracts from Crowncare's annual report

Consolidated statement of profit or loss for the year ended	31 Dec 2018	31 Dec 2017
	V$000	V$000
Revenue	111,685	96,496
Cost of sales	(59,498)	(50,406)
Gross profit	52,187	46,090
Selling and administrative expenses	(6,081)	(5,254)
Operating profit	46,106	40,836
Tax	(12,910)	(11,434)
Profit for year	33,196	29,402

Consolidated statement of financial position as at 31 December	2018	2017
	V$000	V$000
Non-current assets		
Property, plant and equipment	48,102	34,254
Goodwill	32,847	27,248
	80,949	61,502
Current assets		
Inventories	1,634	1,384
Trade receivables	5,026	4,342
Bank	876	794
	7,536	6,520
Total assets	88,485	68,022
Equity		
Share capital and share premium	47,287	41,287
Retained earnings	25,178	12,721
	72,465	54,008
Current liabilities		
Trade payables	3,106	2,584
Tax	12,914	11,430
	16,020	14,014
	88,485	68,022

Extracts from Smilebrite's annual report

Consolidated statement of profit and loss for the year ended	31 Dec 2018	31 Dec 2017
	V$000	V$000
Revenue	18,614	17,869
Cost of sales	(11,900)	(11,186)
Gross profit	6,714	6,683
Selling and administrative expenses	(1,106)	(955)
Operating profit	5,608	5,728
Interest	(120)	(96)
Tax	(1,604)	(1,631)
Profit for year	3,884	4,001

Consolidated statement of financial position as at 31 December	2018	2017
	V$000	V$000
Non-current assets		
Property, plant and equipment	6,113	5,652
Goodwill	1,000	1,000
	7,113	6,652
Current assets		
Inventories	363	308
Trade receivables	1,551	1,489
Bank	224	237
	2,138	2,034
Total assets	9,251	8,686
Equity		
Share capital and share premium	2,600	2,600
Retained earnings	2,599	2,742
	5,199	5,342
Non-current liabilities	1,500	1,200
Current liabilities		
Trade payables	626	517
Tax	1,926	1,627
	2,552	2,144
	9,251	8,686

Press coverage

Getting On Magazine

Dental implants become mainstream

Tooth loss was once considered an inevitable sign of ageing. Improvements in dental care have reduced the rate of loss, but many of us still dread that visit to the dentist.

Thankfully, there is now a viable alternative to being forced to wear dentures, that have to be taken out and cleaned every night, or suffer the inconvenience of uncomfortable bridges. Dental implants involve implanting a titanium “root” into the patient’s jawbone. The human body does not reject titanium and so the bone knits around the implant and makes it secure. Once the implant has been fixed and the jawbone has settled, the dentist then screws in the abutment, which is essentially a titanium bolt that secures the crown. Finally, a porcelain crown is fixed permanently to the abutment and the patient is left with what looks like a natural tooth.

This procedure can be used to deal with the loss of multiple teeth. If two or even three adjacent teeth have been lost, the dentist can insert an implant at either end of the resulting gap and can fix a porcelain bridge across the abutments. It is even possible to replace all of the teeth on either the top or bottom jaw. That involves several implants. Their abutments are used to fix a plate in place, with only the porcelain crowns showing.

This is not a cheap process. The jawbone may have to be reinforced by injecting it with an inert filler in order to support the implant. Then the implant itself takes several hours of the dentist’s time to fit. Finally, there are laboratory fees for the manufacture of the implant, the abutment and the crown. Charges vary, but replacing even a single tooth can cost more than V$4,000. A full plate for the upper or lower jaw can cost V$15,000 or more. These costs are not covered by dental insurance.

One word of caution. Up to 4% of implant procedures fail within five years. Causes vary, but include poor oral hygiene and, rarely, a rejection of the implant by the patient’s body. You are unlikely to be reimbursed for a failed implant, unless the dentist was at fault.

Daily News

Dentists put the bite on VHS patients

A recent survey published by the Varentian Dental Council (VDC) reveals that the number of dentists who are willing to treat patients under the state-funded Varentian Health Service (VHS) scheme is in decline. Dentists claim that the VHS underpays them and restricts their clinical choices by refusing to fund many commonplace procedures. For example, many dentists prefer to use white fillings, that are effectively invisible when used on the patient's front teeth, but the VHS restricts them to amalgam fillings, that can look unattractive. Furthermore, the VHS pays only V$50 for an amalgam filling, which is less than the rate charged by most dentists.

The vast majority of dentists refuse to accept new patients, unless they are prepared to pay for private treatment. Dentists usually encourage their patients to spread the cost by taking out private dental insurance. The patient pays a fixed monthly premium in return for regular preventive care, such as hygienist appointments and check-ups. The cover also pays for fillings, extractions and other clinical procedures.

It pays to read the small print of any insurance policy. For example, the surgery time associated with replacement dental crowns will usually be covered, but the laboratory costs associated with making the crown itself may have to be paid for by the patient.

Many insurers offer dental insurance. As with any insurance cover, the premium increases in line with the risk. Patients who have significant amounts of work done may face an increase in their premiums.

Getting On Magazine

Say no to amalgam

Dentists have two main choices when faced with the need to fill a tooth: mercury amalgam and white polymer resin.

Mercury amalgam is a metal alloy that is mixed in the dentist's surgery immediately before being used to fill the tooth. The material is pliable for a short while after mixing and so it can be pressed into the hole that the dentist has prepared. The filling then takes up to 24 hours to harden completely. During that time, the filling may crack if the patient bites down on the filled tooth.

Polymer resin is a translucent plastic that the dentist injects into the hole in the patient's tooth. The resin comes in a tube and is ready to use. Once the hole has been filled, the dentist cures the resin with a powerful ultraviolet light that causes a chemical change. The resin hardens completely within a matter of seconds and the resulting filling is as strong as it will ever be before the patient leaves the dentist's chair.

Mercury amalgam costs less to buy than polymer resin, although that cost advantage is offset by the need to mix it during the appointment, taking up valuable "chair time". It is also more laborious to work with the material, because it will not have time to harden while the patient is in the surgery and so the filling has to be shaped carefully. Polymer resin fillings can be shaped using the dentist's drill, if need be.

None of that matters to patients, though. The big advantage of polymer resin fillings is that they are virtually invisible. Resins come in different shades and their translucent nature also helps them to blend in. A mercury amalgam filling will always look like a silver metal patch in the patient's tooth.

Daily News

Smiles easier at the dentist

A number of new technologies are making fear of dental appointments a thing of the past. One major new innovation is the development of laser-powered drills. These fulfil the same function as the traditional dentist's drill, but they are far more precise and so they can be used to remove any damaged or decayed tooth with less risk of damage to the surrounding area. Furthermore, they are much quieter and so less intimidating.

Fillings are also becoming less of a concern, because of new adhesives that act as fillings. These are stronger than existing materials and so require less of a foundation. In some cases, the dentist may be able to repair a chipped or cracked tooth without the need to drill out a base to give the filling a proper grip.

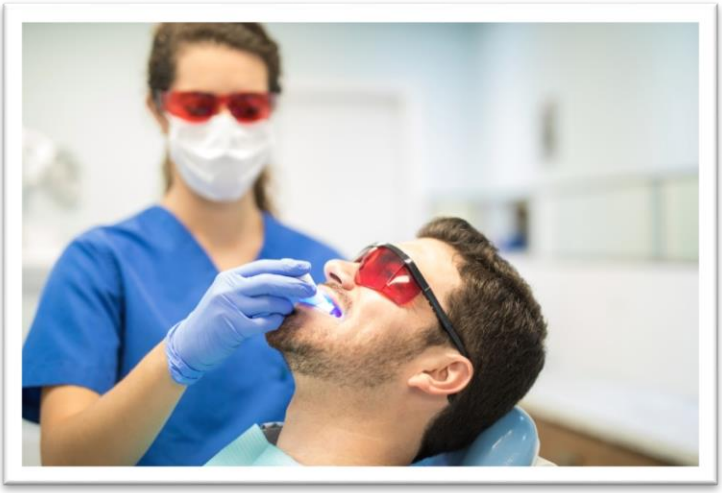
Digital technologies are also playing a part. Making dentures, braces or crowns fit correctly, usually involves taking an impression, which can be uncomfortable and requires a wait while the resulting model is processed at a dental laboratory. New 3D scanning technology means that the dentist can take all the necessary measurements by inserting a small video camera into the patient's mouth. The resulting files can be emailed directly to the dental laboratory. Laboratory technicians can then use the latest 3D printing and Computer Assisted Manufacturing equipment to make a perfect crown very quickly. That reduces the waiting time between appointments and enables the treatment to be concluded more quickly.

Despite these possibilities, dentists agree that the most exciting advance in dentistry has been the development of fluoride toothpaste which reduces decay and helps fight gum disease.

Daily News

Smile please

Many years ago, trips to the dentist were associated with painful fillings and even the loss of decayed teeth. The near universal use of fluoride toothpaste and, to a lesser extent, electric toothbrushes has brought about a revolution in dental health. Patients are better educated and better equipped to manage their own dental hygiene and that is leaving dentists with more time on their hands.



Rather than closing their surgeries, many dentists have viewed the improvements in dental health as an opportunity to sell more elective procedures, particularly in the areas of cosmetic dentistry. For example, teeth can be made several shades lighter, using the latest laser-based techniques. It is becoming far more common for crooked teeth to be straightened. It is even possible to cap uneven teeth to give a Hollywood smile.

Cosmetic dentistry is expensive. However, patients are willing to invest in treatment that will improve their appearance and hopefully last for the rest of their lives.

Business Daily

Captive insurer drags down Varentia

The medical profession is considering the implications of the collapse of Varentia Private Hospital Corporation (VPHC). The company, which owns and operates six major hospitals, had established its own "captive" insurance company to deal with cover for its extensive properties and other physical assets. The captive insurer was essentially a wholly-owned subsidiary that insured only VPHC. The insurer banked the premiums for the Group's physical assets and settled any claims.

A catastrophic fire at the company's largest hospital caused more than V$900 million in damage, which is more than the insurer can afford to pay. VPHC will be forced either to borrow heavily for repairs or demolish the building and sell the site.

VPHC has stressed that the captive insurer dealt only with cover for property, plant and equipment. All other insurance cover, including liability insurance covering injury to patients and staff, is provided by conventional insurance companies and so is unaffected by the loss.