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UDA Journal

.....
Uganda Dental Association



PRINCIPAL DENTAL SURGEON

Dr. NABBANJA J. KATUMBA
.....

THE SIRONA EXPERIENCE

Dr. TOM MUTYABULE
.....

COMMUNICATION SKILLS FOR DENTISTS

Dr. JAMES MAGARA
.....

MULTIDISCIPLINARY MANAGEMENT IN DENTISTRY (IMPLANTOLOGY AND ORTHODONTICS)

Dr. GEOFFREY BATARINGAYA & Dr. AISHA BATARINGAYA
.....

DENTAL RECORD KEEPING IN OUR PRACTICES

Dr. ANNET KUTESA-MUTEBI (BDS, MSC (DENT))



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Content

4. Editorial
5. President's Message
6. UDA Committee Members
7. Chief Dental Surgeon
- *Dr. Julie Nabanjja*
8. Effective Communication Skills for Dentists
- *Dr. James Magara*

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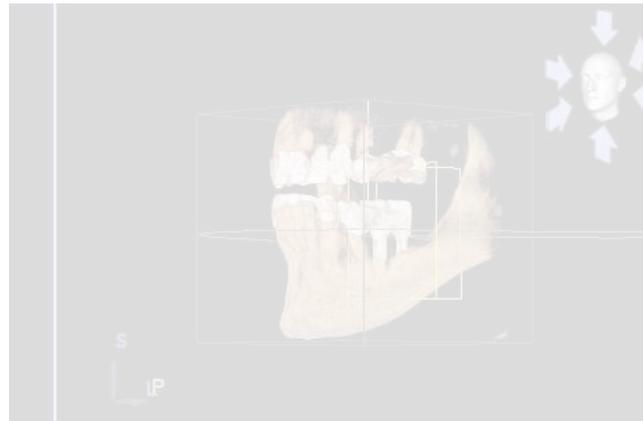
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10. A Case Report of Multidisciplinary Management of a Class III Malocclusion Patient with Missing Teeth
- *Dr. Geoffrey Bataringaya,*
- *Dr. Aisha Bataringaya-Sekalala*
13. Sirona Experience
- *Dr. Tom Mutyabule*
19. Third Molar Surgery
- *Dr. Menya Adam Umar*
22. Dental Amalgam: Best Management Practice
- *Dr. Steven Mugabe*
23. An Audit of the Dental Record Keeping Practices at MakCHS
- *Students' Perception by Dr. Annet Kutesa*

EDITORIAL

DR. LYNN ESTHER MUSINGUZI
BDS

This is the UDA Annual Scientific and Informative Journal 2014, "Why restate that?" you might ask.



As an association, our first core objective is; 'To promote advancement of the art and science of dentistry and the promotion of exchange of ideas amongst dentists in Uganda and the world at large.'

Our journal serves this purpose, it is the leading scientific publication in the country pertaining to the field of dentistry in Uganda and it serves to promote the above.

I would like to thank all the members of the UDA for their participation in sharing knowledge in terms of articles and also thank the UDA Executive team 2014 for leading us through the year with multiple activities.

Has the art and science of Dentistry in Uganda advanced? Have we embraced the new, easier, quicker and more efficient ways of practicing our skills? That is a challenge to us.

Yes, indeed we have! Cariology 101 and the fundamentals of Dentistry never change, more knowledge might be thrown to the facts that we already know but a cavity remains a cavity, a malocclusion is still the same today and tomorrow and a tumour will remain a tumour.

The issue is how we correct the problem in the most comfortable way for the patient and for ourselves. How do we correct that mal-alignment that has caused grave grief to a person and their identity? How do we best diagnose and manage those tumours? That is the advancement we have to embrace.

No, we have not, another might argue. A large percentage of our population as a country has never seen a dentist. A popular tabloid recently stated that from studies, the ratio of a dental surgeon to patient stands at 1:150,000 in Uganda.

Sadly the reality in Uganda is that dental services are meager and below the minimum average.

Let us share knowledge, let us keep pushing for the advancement of dentistry in Uganda.

Now another edition of the UDA Journal has been published to serve and bridge that gap with exciting articles, discussions and arguments by our colleagues.

It is indeed my pleasure as your UDA 2014 Journal Editor to present to you this issue.

On behalf of my generation and the generations to come, we would like to thank the founders of Dentistry in Uganda, those who strived to introduce dental health to our communities and pave the way for us to practice what we are most passionate about.

However, this is a challenge that now falls on us. 'To promote the advancement of the art and science of dentistry and the exchange of ideas amongst dentists in Uganda and the world at large as the core objectives.'

Let us all carry the bright torch that was blazed and lift it even higher.

Hope you enjoy this issue.

Thank you

Dr. Lynn Esther Musinguzi

Editor

UDA Journal

“To promote advancement of the art and science of dentistry and the promotion of exchange of ideas amongst dentists in Uganda and the world at large.”

PRESIDENT'S MESSAGE

DR. STEVEN MUGABE

BDS, FICOI

“ We have had several CPDs and product promotions from dental materials suppliers. We also joined the Uganda Medical Association (UMA) in discussing the National Health Insurance Bill.”



Dear UDA Members:
I hope you have had an exciting and profitable time in practice this year. On behalf of the UDA Executive and on my own behalf, I would like to thank you for giving us the opportunity to serve you.

We are proud to report that the UDA office has been running with an administrator since February 2014. We are in the process of making our office a one stop center for all information concerning dental practice in Uganda.

Our term was productive and we gained good milestones. On the 20th March 2014, we joined the rest of the world in celebrating World Oral Health Day (WOHD), which was a resounding success. Special thanks to our partners, Orbit professional, Colgate-Palmolive and Aquafresh toothpastes. We visited six schools around Kampala, in the days leading to WOHD and then conducted a press conference, where the Minister of Health gave a speech on Oral Health in Uganda. The event received good coverage from both print and electronic media. A report can be obtained at the UDA office or on our website.

We have had several CPDs and product promotions from dental materials suppliers. We also joined the Uganda Medical Association (UMA) in discussing the National Health Insurance Bill. A few of the Executive Members also represented the UDA at the National Health Authority bill consultations with stakeholders,

Dr. Charles Mugisha Rwenyonyi was re-appointed as our representative on the Uganda Medical and Dental

Practitioners Council, in August, after successfully representing us in the previous term.

We have also joined the Uganda Healthcare Federation, where Dr. Paul Aliker was appointed as the UDA representative.

We have had several hands-on workshops throughout the year and I would like to thank Dr. Tom Mutyabule and the Pan Dental Surgery team, who have made a difference in the way we practice by sharing their knowledge and experiences, having conducted most of those workshops, during the year.

I also represented Uganda at the World Dental Parliament during the FDI Dental Congress in India, where several draft policies were passed into official FDI statements on dental practice. Those draft policies have been circulated during the UDA AGM.

I would like to thank the UMDPC Registrar, for all the updates from the UMDPC, the Chief Dental Surgeon for all the support towards WOHD, and all of you who have participated in our activities and shared your enriching knowledge. May 2015 be a more profitable year for you and I pray you keep supporting the UDA, to serve you better.

Very best personal regards

Dr. Steven Mugabe

UDA President ■

UDA COMMITTEE MEMBERS



*Dr. Steven Mugabe
UDA President*



*Dr. Edward Kalyesubula
UDA Vice President*



*Dr. Jackie Nambatya
UDA General Secretary*

...Healthy teeth for a beautiful smile

Our Mandate

To coordinate, harmonize /standardize the dental profession in Uganda.

Our Mission

To strengthen the dental profession through utilizing the synergies of its membership

Our Vision

An effective and professional dental system that is accountable, sustainable and accessible.



*Musoke Celestine
UDA Eastern UG Rep.*



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UDA Ex. Officio.*



*Godfrey Kwizera
UDA Western UG Rep.*



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*Melanie Namisango
UDA Office Administrator*



PRINCIPAL DENTAL SURGEON

DR. NABBANJA J KATUMBA

BDS

Dear UDA members and the fraternity of dental care providers at large. I salute you all.

On behalf of the Ministry of Health (MoH) and on my own behalf, I wish to extend warm greetings to you all and thank you for the tremendous work you do in providing dental care to the people of Uganda.

I am grateful to the UDA Journal team and more so, the Journal editor for this opportunity availed to me to share with you what is happening at the Ministry. I also commend the team for the job they do so well of keeping the fraternity in the know through the journal articles. I highly recommend it for reading by all UDA members.

As your representative at the Ministry of Health, I wish to share the efforts so far made in relation to improving dental service provision, starting at the 13 Regional Referral Hospitals (RRHs) country wide. I selected the RRHs to be the starting point because they are mid-level service provision points, directly supervised by MoH, while National Referral Hospitals are semi-autonomous and General (district) hospitals are mainly under Local Government.

Efforts through Public Private Partnerships have enabled the facilitation of all Regional Referral Hospitals to acquire the required dental equipment to provide the dental care as expected in the minimum health care package. Our Canadian sponsors are supporting us with the dental equipment and consumables in a partnership with the Rotary Clubs of Canada in conjunction with Ugandan Rotary Clubs that are in the vicinity of each RRH.

The second project at the RRHs is that of screening for oral diseases in primary schools. The dentists in charge of all the units at the RRHs have been tasked to provide a monthly report. Each hospital is expected to have 10 schools where they conduct screenings and provide ART to a few selected pupils. I appreciate all the efforts shown by the dentists at the RRH on this task. The data generated will act as a pathfinder survey for baseline data that can be used to guide policy review and future planning for dental services. This project has attracted an organization called DENTISTS WITHOUT BORDERS, based in SWEDEN that is planning to start working with the RRHs in 2015 on the screening/ART project. I am grateful

to a number of the privately working dentists that volunteered to visit some of the Regional Referral Hospitals with me during the support supervision visits to transfer new skills and also motivate our colleagues who are working upcountry.

The third initiative, that is annually facilitated by the Ministry is the Oral Health Stakeholders workshop held every October to allow stakeholders of oral health to come together to share ideas on training, service provision, and policy matters in the dental profession. I wish to commend Pan Dental Academy as one of the stakeholders, for the initiative of in-practice training, and encourage all of us to make use of the opportunity.

Currently I am engaging various researchers who can guide us on how to conduct a cost effective National Oral health survey and wish to encourage all of us to engage in research that will provide evidence based interventions, guide planning and policies for oral health.

Tobacco and oral health are very fertile grounds for operational research, and can generate amazing data on oral health and tobacco use.

I once again thank the journal team for all they are doing to keep the professionals well informed and I wish the entire fraternity unity in diversity

For God and my country

*Dr. Juliet Nabbanja Katumba
Principal Dental Surgeon
Ministry of Health, Uganda ■*



Effective Communication Skills for Dentists

DR. JAMES MAGARA BDS

Jubilee Dental Clinic,
Kampala, Uganda

Effective communication is a vital key to success in dental practice. It can build a practice more quickly than any other technique. The dentist-patient relationship is important to patients' expectations and perceptions. These expectations are less related to the technical competence of dentists, and have more to do with the attitudes and communication skills.

Sound communication builds long-term allegiance from patients who accept recommended treatment, enroll in the re-care system, and refer others.

No one likes going to the dentist and so anything dentists can do to make the visits pleasant is advantageous.

Influence of Personality Type on Communication

Good communication begins with self-awareness or "awareness of your persona"

The temperament theory divides people into 4 basic categories which he named; sanguine, choleric, melancholy and phlegmatic.

Cholerics; are hot, quick, active, practical, strong-willed, self sufficient and very independent. They are decisive and opinionated, finding it easy to make decisions not only for themselves but for others. They thrive on activity and have endless goals, plans and ambitions.

- *Cholerics need to learn to listen, be more patient, be less controlling, develop greater concern for people, be more flexible and supportive with people and take time to explain why things are as they are.*

Sanguines; are warm, lively, buoyant, and enjoyable people. They are super extroverts who are receptive by nature, and tend to lift the spirits of those around them. Their fun-loving nature often makes them the 'life of the party.' They are good at motivating and influencing

others to work together.

They tend to be talkative, noisy, weak-willed and undisciplined.

- *They need to learn to: Be less impulsive and more results oriented; Control actions and emotions; Focus more on details/facts; Slow down, and listen; Not talk as much.*

Phlegmatics; They are calm, easygoing individuals with a dry sense of humor and such a high boiling point that they never seem to become angry. They are very likeable characters that do not easily get excited and tend to avoid involvement in what is going on. They are low on motivation for any kind of activity, are indecisive and suffer from procrastination.

- *Phlegmatics need to learn to: Say "no"; Be less sensitive to what others think; Be more direct; Be more concerned with the task itself; Face confrontation; Be more decisive; Do more to initiate action.*

Melancholics; are very richly gifted introverted personalities who are analytical and self-sacrificing. They are very thorough and persistent perfectionists with a very sensitive emotional nature. Fellow melancholics may see them as thorough, persistent, orderly, serious, and industrious whereas other personalities see them as critical, stuffy, picky, indecisive, and moralistic.

They tend to have mood swings from ecstasy to depression and have a tendency of being suspicious of others

- *They need learn to: Respond more quickly; Begin to trust intuition and be less fact oriented; Be more willing to take risks; Be more open and flexible; Be more trusting and unafraid to develop relationships.*

Improving Communication with Patients through;

• Attire

Attire of healthcare providers is important to all patients across all lines of population and geography studied to date. A study showed that professional competence inspires trust among patients, whereas a casual look, wearing sandals clogs, scrub suits or blue jeans is disapproved by most patients

Eye contact

"Eyes are window to the soul". Eye contact is important. Never talk to a patient while standing or sitting behind them.

A reclined chair makes the patient feel vulnerable so it is better to keep the patient's chair upright when taking the patient history otherwise you will be talking down at the patient. Focus your gaze to the eyes not teeth

Listening

Dental professionals need to listen to both verbal and non-verbal communication. One must train themselves to listen actively and avoid selective listening: hearing only what they want to hear. Dentists with the choleric personality need to especially be aware of their need to be more patient and listen out the patient.

Touch

Our patients allow us to touch parts of their bodies we would not otherwise touch. This touch should be positive and appropriate. A pat on the hand or shoulder can show care but may be better done by the dental nurse or chair-side assistant.

Identify with the pain of the patient

Patients get a very negative perception of a dentist when they sense a lack of empathy with the pain they are experiencing. My first experience of receiving dental care

Conclusion

Effective communication is a vital key to success in dental practice. Good communication skills are as important as good clinical skills for the dental professional. Excellent communication with patients and prospective patients

was the removal of my wisdom tooth as my dental student classmates watched. It was a difficult procedure followed by a painful and low healing post-treatment period. That experience helped me empathize with patients in pain; I often relate the experience to my patients.

Follow-up call

One way to show care is to make a follow up call after a major procedure to find out how a patient is. In my experience patients have received this positively.

Do not rush

Dentist's recall of the dental consultation is usually different to that of patients. Patients seem unable to recall accurately future dental health advice or agreed actions. In order to support patient adherence in dental settings, measures need to be taken in practice to;

- *Do not leave the chair side abruptly;*
- *Attend to the patient's final questions and let them leave with a positive word.*
- *Patients should not be asking the dental nurse or the chair-side assistant: "Has the dentist finished?" Or, "What has the dentist done?"*
- *Be a sympathetic listener when a patient wants to share joys, sorrow or personal info; it is a privilege.*

Internal communication:

Communication is an important factor in the marketing and management process. Good communication brings benefits to a practice, improving both patient and staff interest. Dentists should consider the use of internal communications, such as the practice brochure, business cards, in-house information centers, thank you notes, and direct mail to patients, as effective alternatives to advertising.

can build a practice more quickly than any other technique. Patients' expectations and perceptions when visiting a dental practice are less related to the technical competence of dentists, and more to do with the attitudes and communication skills. ■

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Multidisciplinary Management of a Class III Malocclusion Patient with Missing Teeth

A Case Report

Restoration of missing teeth with implants has become the preferred treatment option by patients.

For patients with compromised occlusal function from many missing and un-restorable teeth with underlying malocclusion, a multidisciplinary approach to treatment offers the best treatment outcome for the patient.

This case report will show how a multidisciplinary approach using orthodontics, surgical and restorative dentistry can lead to a satisfactory treatment outcome.

CASE REPORT

A 36 year old male patient presented with a chief complaint of "I want to restructure my dental formula". He further added, "I have neglected my teeth for a very long time. I want them sorted out".

Initial patient presentation:

The patient was in good physical condition with nothing significant in his medical history. He had had previous tooth extractions.

Intra oral and radiological examination revealed retained roots of 14 and 24 with peri-apical lesions, distal caries on 12, 21, 22 and mesial caries on 36. 35 and 45 had occluso-buccal enamel hypoplasia. The missing teeth were 18, 17, 15, 25, 27, 28, 37 and 47.

Diagnosis:

- Class III Type III malocclusion
- Partially edentulous left and right posterior maxilla
- Mesially tipped 16 and 26 with over-erupted 28 and 48 resulting in partial bite collapse
- Inadequate interocclusal clearance
- Adequate ridge width and bone height under the sinus,

but limited edentulous span to restore with implants to replace the missing teeth

- Caries
- Peri-apical infection from retained roots

Treatment plan:

- Extraction of retained roots
- Restoration of carious teeth
- Referral to orthodontist to correct malocclusion and possibly to increase the interocclusal clearance and provision of adequate edentulous span for good implant placement
- Implant placement and restoration with crowns.

A discussion of the treatment plan was had with the patient. He had low expectation of the treatment outcome and low motivation especially in regard to the length of treatment.

Treatment was started with extractions of the retained roots and restoration of carious teeth. The patient was then referred to the orthodontist.

Orthodontic Treatment Goals:

In 1972, Andrews described the Six Keys to Normal Occlusion, and this description of orthodontic treatment objectives is still the standard by which orthodontic treatment results are measured.

However, adult patients present with many pre-existing conditions that are not seen in the adolescent population, including tooth loss, severe skeletal dysplasias, periodontal disease, and various forms of temporomandibular dysfunction. Frequently, the pre-existing conditions that are present in the adult patient interfere with the achievement of orthodontists' general idealized goals. In such adult cases, an attempt to achieve

ideal tooth positions that are feasible only in dentitions with a Class I skeletal relationship may be considered over-treatment.

This is not to say that the orthodontic therapy provided is any less precise; rather, it suggests a need to customize orthodontic treatment for the individual patient so that the achievement of any one goal (perhaps facial esthetics) does not undermine a less obvious but equally important functional need.

Orthodontic diagnosis:

- Dental Class III Type III malocclusion
- Crossbites between 16/46, 13/43, 26/36, 23/33
- Periodontally compromised 31
- Cephalometric xray revealed a Class I with bimaxillary protrusion

Orthodontic Treatment Objectives:

- Correction of anterior and posterior crossbites
- Parallelism of teeth: to permit insertion of implant placement and allow for aesthetic restorations of the posterior teeth
- Esthetic and functional improvement: to achieve a pleasing smile and functional occlusion

Orthodontic treatment:

Patient was referred for extraction of the 31 at the start of treatment. A quadhelix appliance was used to correct crossbites whilst leveling and aligning of the arches. This appliance was activated every alternate visit for a period of six months. Transverse correction was thereafter maintained with a 19x25 ss rectangular arch wire. The edentulous width was maintained with open coil spring and measured each visit to ensure that it stayed constant. This was a crucial step for implant treatment planning.

In the mandible, anterior alignment and retraction of incisors was achieved by use of the 31 extraction space. The mandibular third molars were retained in the arch long enough to be used as anchor teeth in the retraction of the incisors. A mandibular 0.016" Australian wire was used during space closure with power chain running from 38 to 48 and Class III elastics were worn for overjet correction. Once this was achieved, the patient was referred for the extraction of 38 and 48.

Finishing and detailing of the occlusion was done and patient referred for implant insertion. Removal of orthodontic appliances was done after osseointegration and a mandibular fixed lingual retainer placed.



Implant treatment:

Upper right edentulous span was 17mm and the left one was 14mm.

The implants to be placed were Southern Implants external hex.

For the right side, the mesial implant to be placed was 3.25mm X 10mm and the distal implant to be placed was 4mm X 10mm.

For the left both were 3.25mm X 10mm.

An impression was taken of the upper arch with the orthodontic wire removed to fabricate surgical stents. A surgical stent ensures correct placement of the implant in relation to the other implant and teeth.

Surgical Implant placement:

The patient was given local anesthesia and a 4mm tissue cutter was used for the 3.25mm diameter implants and a 5mm tissue punch for the 4mm diameter implant.

If the ridge is of good thickness and is not curved in the buccal vestibular area, you can prepare the osteotome through the opening made by the tissue cutter without having to raise a full thickness mucoperiosteal flap.

This gives a very good post surgical experience for the patient as there is less pain and the healing is faster.

The osteotomies were prepared using the surgical stents.

The final twist drill was 3mm for the 3.25mm diameter implants and 3.25mm for the 4mm implants. This was to optimize the bone/ implant contact and to have good primary stability. Healing abutments were placed on the implants and a check panorex was taken. The distal implants were torqued down further. Augmentin, Ibuprofen and Oraldine (an antiseptic mouthrinse) were prescribed.

One month follow-up evaluation showed normally osteo-integrating implants.

Restorative treatment:

Three months from implant placement, impression copings were screwed on the implants and an impression with polyvinylsiloxane impression material taken. The impression of the opposing arch was taken with alginate and a bite registration and shade selection was done. All this was then sent to the laboratory.

Prior to impression taking, the 16 and 26 had to have adjustments made on the mesial walls to remove the undercuts created by the mesial tipping that could not be eliminated completely by orthodontic treatment.

Porcelain fused to metal crowns were placed with the screws tightened to 45Ncm. The access openings were sealed with cotton pellets and flowable composite. Occlusion was checked and the crowns adjusted.

Oral hygiene instructions were given to the patient with emphasis on using a Waterpik irrigator.

Photographs taken 5 months later show growth of the interdental papillae to have filled up 5 of the 6 interdental spaces with the 6th space also filling up.

The patient is very happy with the outcome of treatment.

He eats and talks better, and cannot stop smiling.

Clinical overview:

The typically applied adolescent orthodontic treatment objectives of dentofacial esthetics, stomatognathic function, stability, and static and dynamic Class I occlusion often may not be realistic or necessary for all adult patients. Treatment in which adolescent goals are not achieved is not necessarily compromised; rather the mechanotherapy should satisfy the objective of providing the dental manipulation appropriate for the individual case. In this particular case, the patient had declined orthognathic surgery but clearly understood that given the periodontally compromised oral environment, treatment objectives were designed to address aesthetics and function with a "get in and get out" orthodontic approach.

This case report demonstrates how a multidisciplinary approach using orthodontic, surgical and restorative dentistry presents an opportunity for complementary and comprehensive treatment leading to the best outcome for the patient.

Through orthodontic therapy, it was possible to achieve a better dental relationship, improve facial aesthetics and provide adequate space for rehabilitation with implant placement to restore full function, dental aesthetics and phonetics. ■

SIRONA EXPERIENCE

DR. TOM MUTYABULE

BDS (MUK), MSc (Univ. of London)
C.Implantology (Univ. of Pretoria), F.I.C.D



For the last 23 years I have been a dentist. I have been lucky to use various equipments and materials. I have come to appreciate some technologies and materials and would like to share my experience with you.

I must start by declaring personal interest that I represent Sirona, Ivoclar, Megagen, 3M and Henry Schien in Uganda. Nonetheless I have found some very valuable experience which I will endeavor to share with you.

CADCAM

For the last 27 years, Sirona has been at the fore front of developing technology for computer aided designing and computer aided manufacturing (CAD/CAM) also referred to as CEREC (Chairside Economical Restoration of Esthetic Ceramics).

I started using CEREC in 2008 and it was an immediate game changer in my dentistry. Ever since then, my patients who have had the opportunity to try it have found the treatment much quicker, easier, simpler, less stressful and many many many times more esthetic. As the technology has improved so has the level of delivery to make complex restorations like Implant crowns and Bridges, Implant surgical stents among others. The immediate benefit I realized was that I no longer had to buy as much alginate, bite registration material and the precision impression material for the restorative work. There was also no need to courier models to labs and the lab fees that are usually needed.

It is now possible to offer patients veneers, crowns, inlays, onlays and bridges at a much faster rate than ever before.

BEFORE CEREC treatment tooth 11, 21 has a PFM crown. Close up view of tooth 11 before treatment

One thing I can advise is to encourage every dentist not to be left behind by the technology train!! Recent advances in CEREC by Sirona mean that a dentist can offer more to patients, and the smile design as a new addition to CEREC is one of the latest interesting options.

With this technology, apart from there being no need to buy impression materials for restorations, it's quite interesting to see that the model of the restoration is done in minutes compared to the casting which takes at least an hour (from the time to take the impression and then convert that to a physical impression model by casting it. The digital model from impression time is ready on the screen in less than 2 minutes. It therefore saves a lot of time for the dentist, the clinic and the patient.

Another advantage is that it is possible to magnify the model to over 30 times: less error therefore since you can see more. It is therefore not surprising that CEREC Restorations have been shown to have better margins as compared to Lab Restorations.

You can store the models digitally and make several restorations on the same model at no extra cost of impressions and furthermore the recent software developments mean that you can correct the impression to get an even more accurate restoration.

Also the model with the latest 4.2 CEREC software shows the gum as pink and the teeth as white making it easier to have an even more accurate restoration.



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Our Services



3-D x-ray machine



3-D image x-ray



CEREC; before and after

PAN DENTAL SURGERY ACADEMY

Pan Dental Academy was registered on 10th December 2013 and it was officially launched on 01st/august/2014.

The academy is a platform through which dentists share knowledge and ideas in the different fields of dentistry. It also offers continuous professional development in all fields of dentistry to practicing dentists.

*Our vision is
" To offer excellency in dentistry"*

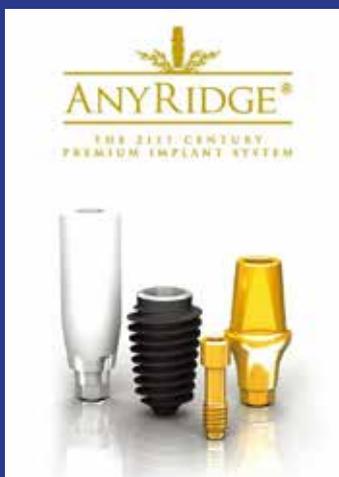
The focus of the academy is to offer at least one training every month to registered dentists. So far trainings have been conducted in CEREC technology, Implantology, and Endodontics. subsequent trainings to come include 3D imaging, Sinus lift, Chair side trainings, Endodontics part 2 among others. The academy is well facilitated with capacity to train in all dental areas.

The academy is in partnership with Sirona, Megagen implants, Ivoclar and Pan Dental Surgery Ltd.



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PAN DENTAL SURGERY SUPPLIES STORE



MEGAGEN IMPLANTS

We are authorized distributors in Uganda for;

- Sirona products ; CEREC, 3 d imaging machine, sterilization equipment
- 3m products; impregum , prohy paste polishing discs
- Megagen; implants



We also supply products from;

- Henry shein;
- Ivoclar; e-max crowns, empress crowns
- Vita

3-D IMAGING UNIT & MILLING MACHINE

AFTER CEREC Treatment. Patient preferred esthetics of the 11 and wants to change the 21. Close up view of tooth 11 before treatment



BEFORE CEREC Treatment



AFTER CEREC Treatment



The highest level of magnification-up to 30 times means that the dentist will see and make the more accurate restorations compared to the handmade models to which you can magnify up to only approximately 4 times.

The digital storage of the CEREC system means that re-makes are quick easy and you can make the restorations as before. I remember I was in Dubai recently and a patient who had an accident with his implant crown which had fractures called on Saturday afternoon. This CEO had to travel the next day Sunday evening. He had previously been happy with his implant crown. By the time he got to office on Sunday morning, his crown had been milled (took 10minutes to make and 30 minutes to bake in the oven)

Time has become more precious in these modern times and the speed for making restorations with CEREC machines is quicker for the patient and hence more convenient.

The simplicity of taking impressions is something patients love very much while the physical impression is hated by some patients because of the gag reflex. The CEREC impression technique is very simple, more

comfortable and takes a tenth of the time. Research done recently (Ref: Emir Yuzbasioglu, Hanefi Kurt, Rana Turunc and Halenur Bilir; Comparison of digital and conventional impression techniques, evaluation of patients' perception, treatment comfort, effectiveness and clinical outcomes 2014, 14:00hrs BMC) confirms this fact that they are more beautiful than porcelain and have a more natural tooth like appearance.

I have had to replace many cases of functional and generally healthy looking porcelain crowns only for cosmetic reasons when patients realize how beautiful CEREC restorations look compared to porcelain. CEREC restorations usually look more beautiful than the porcelain

Lastly, the amazing function of copying is very impressive. If a patient is happy with the shape and size of their teeth, it is possible to copy it before preparing the tooth to do a restoration. One only needs to request the machine to give you the same shape and size of the tooth like before the restoration by imaging the tooth before the preparation.

Siroendo, 3D X-ray imaging and the DAC universal



Photo courtesy of Dr. Ivan Marx:

Look closely at the “perfect” root fill in 21

have all made practicing dentistry much more fun. The Siroendo is a small device with an endo motor and an apex locator for root canal therapy. It can virtually be folded and placed in a small pocket. It has given me the most variable speed and torque of engine driven files and with the largest selection of also possible to select various file types. Not all teeth have the same canal shape and therefore the difference in what one can use to prepare the root canal system with its very sensitive and accurate apex locator make it much more user friendly and more fun for both patient and dentist. It also has a sensitive motor with the auto reverse option when files get to the apex or are about to fracture due to fatigue of the metal (the set torque and speed)

The 3D X-ray imaging is an x ray system which can show all the parts of the oral cavity and jaws in 3D dimension while the DAC Universal is an autoclave which cleans, disinfects, oils and autoclaves hand pieces in 15 minutes making it the fastest auto clave I’ve ever used. From the clinic point of view I need fewer hand pieces to run efficiently because the turnaround time is 30% of what other autoclaves require.

XG3D has revolutionised diagnosis in the dental area for me and has made treatment planning much easier: dentists can only treat what they see. All views of the dental area in 3D dimensions mean that it is very difficult to miss any pathologies or anatomical variations. 2D imaging has pitfalls.

We need to change the way we determine success. For years we were happy with 2D xrays – we just didn’t know.



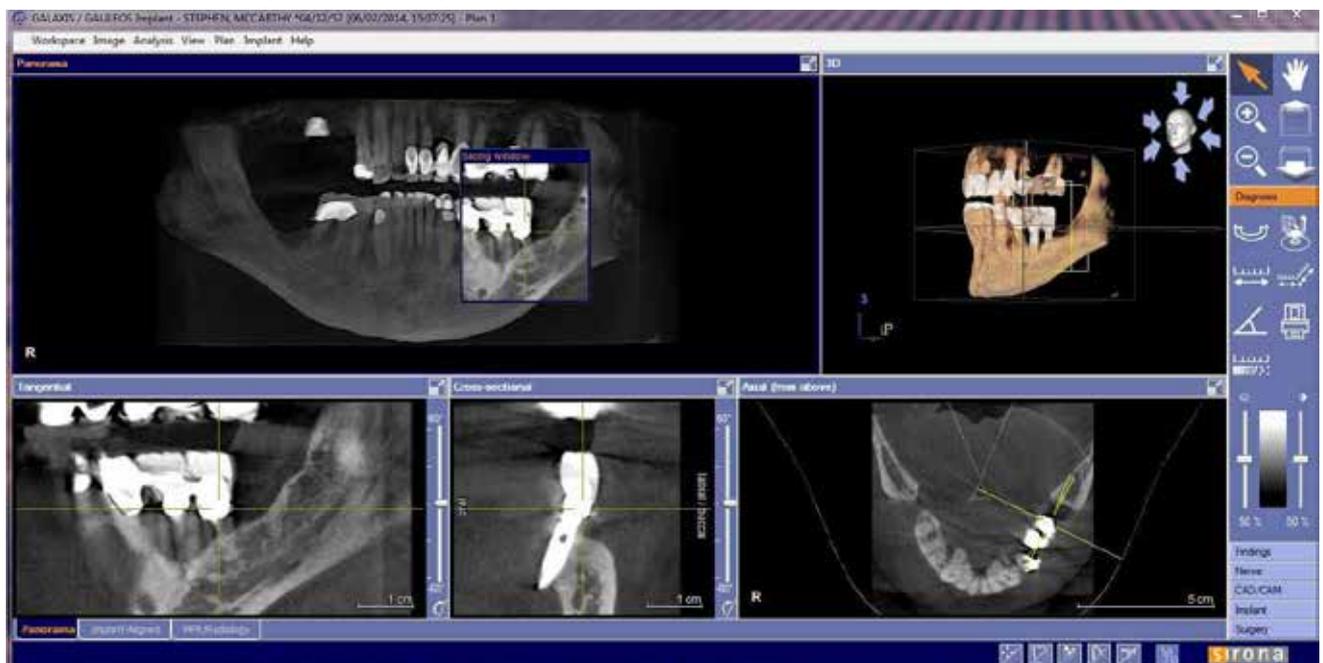
Photo Courtesy of Dr. Ivan Marx. Alas!!
The root fill is outside the canals.



Image of implant in soft tissue
 2D screen shot showing implants in region 36,37 well placed.



3D screen shot showing implant in region 36 perforated the lingual cortical plate.



It's also amazing the pathologies missed in the 2D views. ■

THIRD MOLAR SURGERY

DR. MENYA ADAM UMAR
BDS

Wisdom teeth are the last teeth to erupt into mouth at about 16-18 years of age with full root development complete by 21-22 years. Because these teeth erupt when jaws are fully developed and other teeth have fully erupted, more often than not, they come out impacted.



T There are different levels of impaction which present a number of challenges to the dentist and patient; seeing as they are difficult to clean. They are usually areas of food impaction which may cause halitosis (bad breath) as well recurrent pericoronitis.

Impacted wisdom teeth also increase the risk of caries formation for themselves as well as the neighboring second molars; they also act as weak points for formation of fracture of the ramus even with minimum trauma.

They can also be the cause of unexplained pain and headaches in the oro-facial region, their proximity and sometimes contact with the inferior alveolar nerve may also be a cause of neuropathic pain.

There are different schools of thought about the management of third molars;

- One says that you leave them intact as long as they are not causing any problems
- The other school advocates for the removal even before their development is complete because they will most certainly become an issue at some point in one's life

Unfortunately most people only seek help when they become symptomatic meaning that most of the third molar surgeries are due to caries of these teeth or the 2nd molars (crowns are brittle at this point)

When a decision is made to extract third molars, the two golden rules of dentistry come in very handy,

- You cannot treat what you do not see;
- An extraction is never simple until the tooth is out of the mouth.

With the above rules in mind, meticulous planning before surgery is important so as to minimize the post operative complications. This will involve both clinical and radiographic examination so as to classify the impaction and gauge the associated difficulty involved with removing it.

A panoramic x-ray should be a standard requirement before any disimpaction is attempted so as to guide the clinician on the best path of removal, how much bone reduction is needed, location of important structures, whether you can handle the job at hand or refer the patient to a specialist.

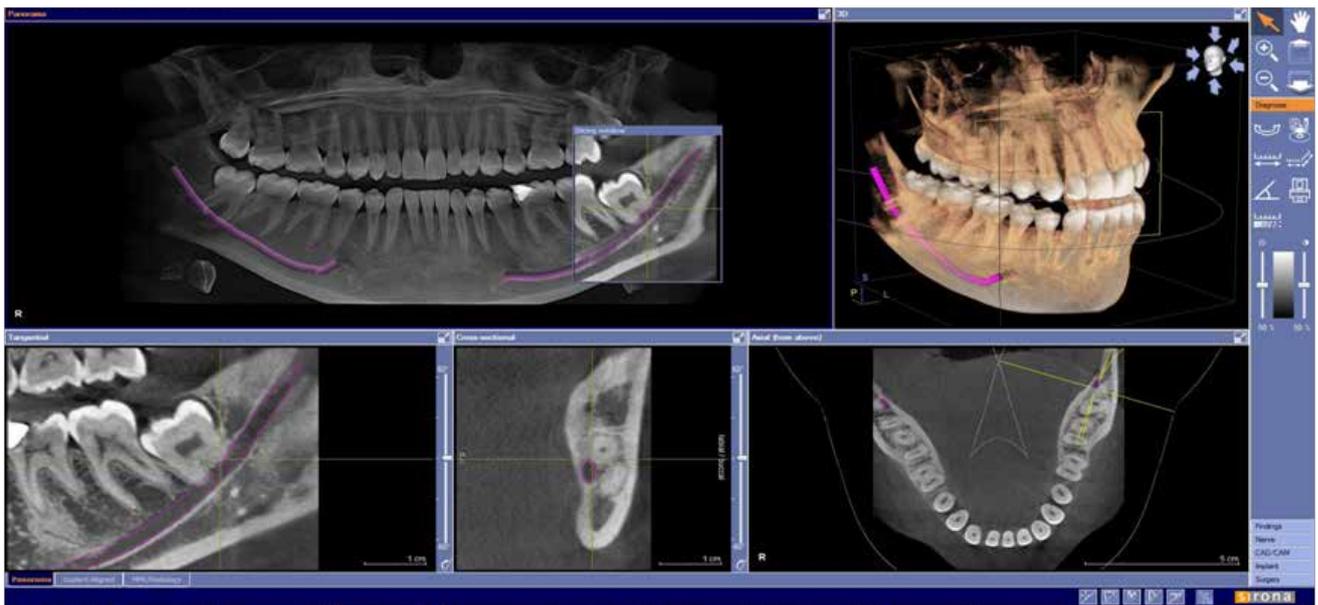
Recent advances in imaging have allowed the use of 3D x-rays which really help to pin point the exact location of the nerve bundle hence a reduction in the incidences of nerve damage as it promotes a more cautious approach.

The x-rays below are of the same patient where the 2D image shows the third molars in contact with the inferior alveolar nerve bundle whereas the 3d image shows that the tooth makes no contact with nerve bundle rather the nerve passes by the side of the tooth in lingual direction



2-D image

3-D Image



CLASSIFICATION OF 3rd MOLARS

Systematic and meticulous classification of the position of impacted molar teeth helps in assessing the best possible path of removal of the impacted teeth and also in difficulties encountered during removal.

Prediction of operative difficulty before the extraction of impacted third molars allows a design of treatment that minimizes the risk of complications. Both radiological and clinical information must be taken into account.

Classification of Impacted Mandibular 3rd Molars based on;

The Nature of the Overlying Tissue

- **Soft Tissue Impaction.** When the height of the tooth's contour is above the level of the surrounding alveolar bone and the superficial portion of the tooth is covered only by soft (though this can be dense and fibrous) tissue. Soft tissue impaction is usually the easiest type of impacted tooth to remove.

- **Hard Tissue ('Bony') Impaction.** This is where the wisdom tooth fails to erupt due to being obstructed by the overlying bone. This can be sub-divided into Partial and Complete Bony Impactions.

Partial Bony; the superficial portion of the tooth is covered only by soft tissue but the height of the tooth's contour is below the level of the surrounding alveolar bone. Apart from cutting the gingiva (gum) & possible bone removal from behind the tooth, the tooth's roots may need to be divided.

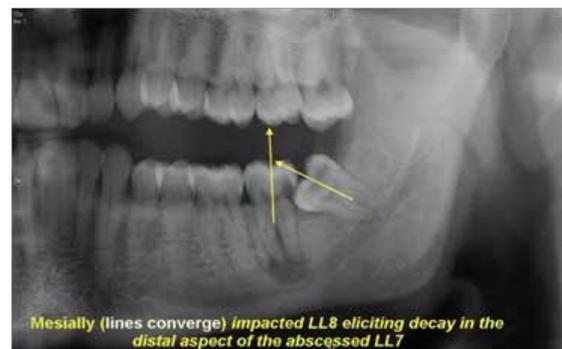
Complete Bony; the tooth is completely encased in bone so that when the gingiva is cut and reflected back, the tooth is not seen. Bone removal (large amounts)

together with root sectioning will be needed to remove the tooth. These are often the most difficult tooth to remove.

Winter's Classification

The classification is based on the inclination of the impacted wisdom tooth (3rd molar) to the long axis of the 2nd molar.

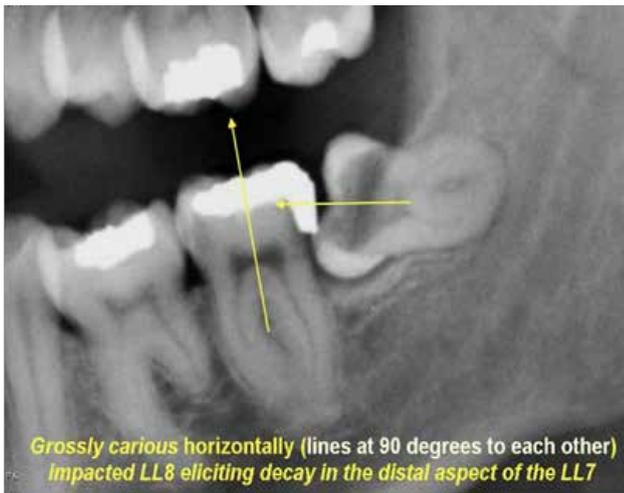
Mesio-Angular. *The impacted tooth is tilted toward the 2nd molar in a mesial direction.*



Disto-Angular. *The long axis of the 3rd molar is angled distally / posteriorly away from the 2nd molar.*



Horizontal ;The long axis of the 3rd molar is horizontal.



Vertical; The long axis of the 3rd molar is parallel to the long axis of the 2nd molar



Buccal / Lingual Obliquity; In combination with the above, the tooth can be buccally (tilted towards the cheek) or lingually (tilted towards the tongue) impacted



Transverse. This is where the tooth is in effect horizontally impacted but in a cheek-tongue direction.



Significance.

Each type of impaction has some definite path of withdrawal of the teeth.

Mesially impacted teeth are (can be) easier to remove whereas distally impacted teeth are (can be) the hardest to remove. You should remember that extraction of a tooth is a form of amputation as it involves interrupting of the continuity of nerves and blood vessels therefore post operative care should include a steroid and neuro-stimulant in addition to antibiotics and analgesics so as to enhance nerve recovery in case of any damage that might have occurred during third molar removal. ■

DENTAL AMALGAM: BEST MANAGEMENT PRACTICE



DR. STEVEN MUGABE.

BDS, FICOI

Amalgam use has increasingly come under attack by UNEPI and environmental activists. A significant amount of mercury is released from the use of dental amalgam every year;

- a) Directly as a result of unsound waste management practices or cremation. Releases occur through a variety of pathways adding up to about 300 metric tonnes per year. Dental amalgam is often the largest source of mercury in waste water, soil and air.
- b) Indirectly through a diversion of traded amalgam for other purposes like poaching.

Here is how you can best use amalgam

Preparation:

- Before handling amalgam, wear protective gear.
- Place the left over amalgam capsule remains in a container labelled **AMALGAM CAPSULES**.
- Place the left over amalgam on the treatment tray in a container marked **AMALGAM WASTE**.
- Do not tip unused amalgam down the sink.
- Do not tip unused amalgam into the rubbish bin.
- Extracted teeth that contain amalgam should be

placed in the container with amalgam waste.

- Amalgam waste will be generated when polishing a new amalgam and when removing an old amalgam. The large waste amalgam particles will be captured by the chair filter and the suction system filter. Other materials like cotton wool, blood, tissue and tooth chips may be in the filter and they are also placed in the container with amalgam waste.
- Remove chair side filter and suction filter and empty contents into the container labelled amalgam waste. Do not tip chair filter contents into the sink or into the rubbish bin.
- Cover the contents of the amalgam waste container with an antibacterial solution. Store the filled amalgam waste and capsule containers in a sealed container or box somewhere safe in your practice.

NEMA is in the process of building an amalgam bunker where this waste will eventually be dumped. We cannot continue disposing off amalgam waste the way we have done for the last one hundred fifty years.

Today do something different.

Dr. Steven Mugabe.

The writer has been trained on Best Management Practices for amalgam use and is available to train anyone who would like further help in getting acquainted with these practices. ■

AN AUDIT OF THE DENTAL RECORD KEEPING PRACTICES AT MakCHS;

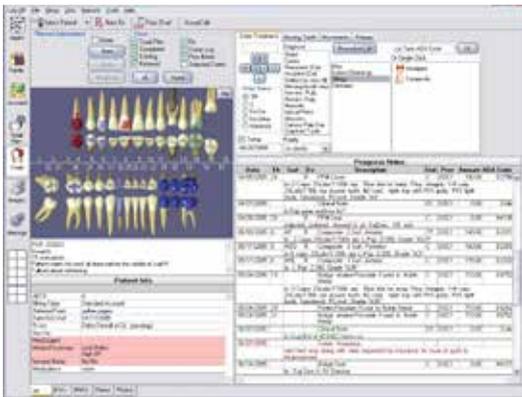
Students' Perceptions

Dr. Annet Kutesa-Mutebi (BDS, MSc (Dent))
Department of Dentistry, School of Health Sciences,
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Introduction

As we all know the making of clear and accurate patients' medical records, their maintenance and storage are an important part of the professional training of a dental student.

Clinical notes of any health professional serve as a window into the health professional's thought processes. Therefore during student training, communication through note-taking is an important aspect of how students can exchange information with colleagues and patients.



At the Makerere College of Health Sciences (MakCHS), interpersonal and communication skills training are included in the training curriculum for the dental students.

These skills are expected to be demonstrated by the students, particularly during the clinical years, when they interact with other professionals and the patients through record keeping.

This study therefore aimed to obtain information on the dental records at the students' clinic in order to improve the system for better learning and teaching.

Methods

This was a cross sectional study using qualitative methodology at the Department of Dentistry, College of Health Sciences, Makerere University. Fourth (n=10) and fifth (n=10) year students were selected to participate in this study because, at this time, they are in their clinical clerkships and handle patient records.

In addition, at this time these same students would have covered a large part of their theory and should be developing clinical skills in the various disciplines at the students' patient clinic.

Data collection methods

The instruments used during the data collection comprised a structured in-depth interview guide and focus group discussion guide. The guides were developed to allow the participants to discuss their perceptions about the patient records, keeping competence at multiple levels including knowledge on patient charting, its existence in the curriculum, gaps identified and recommendations to



improve the curriculum.

After the interviews the data were checked for correctness by cross-checking with the three data sources, themes were developed from the coded data with the help of an expert in qualitative analysis, and the emerging themes were compared to the data and finally interpreted.

Results

The transcribed data from the interviews produced three themes as below:

1. Making: It emerged that the current clerking forms were in need of a re-design as they do not have enough space to make clinical notes, were poorly designed and in addition, due to their size, were easily misplaced.

2. Storage: It also emerged that the current space for storing patient records was inadequate. In addition, the referencing that aimed at facilitating patient file

retrieval needed updating. It was recommended that management should utilise box files to store the patient records and provide a bigger storage area with a reference system for ease of file retrieval.

3. Maintenance: It emerged that the patients' records, especially the x-rays, were not well labelled and the storage system for patient records was poor. It was unanimously recommended that drug dispensing envelopes could be improvised, labelled and used to store the patient x-rays; the introduction of an electronic system to improve storage was also recommended. Similarly, respondents also felt that the lecturers had a bigger role to play in record-keeping but they had not emphasised this aspect enough. They also felt that the students needed more training in this aspect and guidance from the supervisors.

Discussion

Various guidelines from medical and dental councils internationally [1,2,3] emphasise the keeping of accurate, legible and comprehensive patient records and that they should be kept securely in line with any data protection requirements of the institution for a period of not less than ten years from when the patient last attended the clinic for treatment [4].

In view of these guidelines, we found that the students felt that the dental records were being inadequately stored and maintained at the clinic. This situation, we felt was unfortunate because accurate records are considered important for good clinical decisions [1] and therefore better treatment outcomes.

The students expressed the need for more training in record-keeping and guidance from the supervisors. This information was beneficial to us as educators and has helped us in improving the students' training at the clinic, especially the supervision and new patient record forms have been developed in all the disciplines for better patient care and follow up. This finding is corroborated elsewhere, where students have been found to be a source of information which can provide formative feedback to faculty for improving teaching, course content and structure [8]. We also found that the students were able to give recommendations that are practical and easy to implement; as an example they suggested the use of drug envelopes

and box files to store the patient radiographs and records. These recommendations we believe will be taken into consideration as we plan to improve patient record storage and maintenance.

However, what was interesting in this study was the reaction of the students, which showed that they expected the challenges to be solved by someone else. They felt that the responsibility for good-record keeping lay entirely with others rather than the students themselves. They commented that someone should be hired for record-keeping and that lecturers had a bigger role to play in record-keeping. This showed us that the students were aware of the inadequate record-keeping practices at the clinic but that they took no initiative to effect change to improve the situation. This implies that the students cannot easily take on an initiative to change challenging situations even when they are aware of them and that they expect others always to take the lead. We therefore realise that the students need to be taught to be agents of change, and advocate for change in their work environment so as to improve practice.

Conclusion

We managed to solicit for information which guided us as we developed better tools for patient record information for students' dental clinic and consequently better patient care.

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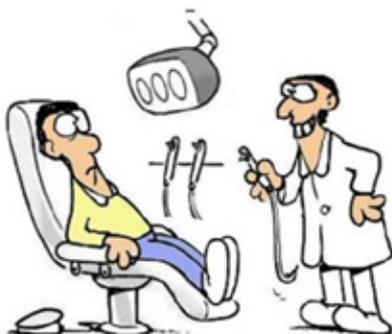
119 Kira Road, Kamwokya
Tel: 0 414 660431

dental humour



*My dentist told me I need a crown.
I was like I KNOW, RIGHT?*

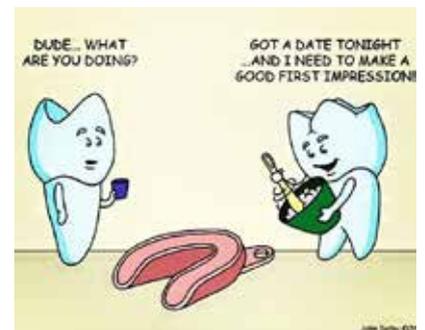
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