DMD3 Tutorial on Monday, June 22 at 1:00-4:00 PM in the VLC (Room 211) covering the topic of **The Medically Compromised Patient.**

What students need to bring and use - papers/pens (brain storm), laptops.

Learning Objective

1. Formulate a medical category - risk assessment - modification table for medically compromised patien

Lesson plan(Gagne 9):

1. Gain Attention, Inform Obj, Prior Knowledge (10min, 1300pm)
2. Present information, provide guidance (10min)
3. Elicit performance (30min)
4. Form up in 6 groups (5-6pax), 25 min to prep 1 question.
5. Use paper/chat GPT/google. create a 8min ppt with 2-3min Q&A
6. All 6 grps present (60min), assess performance
7. Remind to use during Clinics. enhance retention (end ~1500+pm)

The Medical History

- Look at the Systems that are compromised – stable vs unstable
- Look at the medications – dosages, frequency and conditions its used for
- Look at the dental treatment modifications that are required
- Prioritize the medical history in relation to its impact on dental procedure
- Any medical consult requirements?

SPECIAL NEEDS DENTISTRY
DR LYDIA SEE
Specialist in Special Needs Dentistry

From Dr Lydia See

The Dentistry

- What is it about the dentistry that is going to impact the overall systemic health of the patient?
- What is it about the overall systemic health that is going to impact on the dentistry?
- Are we doing invasive vs. non-invasive procedures?

Bacteraemia

Bleeding

Healing

Anxiety

Positioning

Consent

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Risk Assessment Table

Medical categories and others	Risk	Modifications / Implications
Respiratory – Severe asthma – inhaler use	Asthmatic attack Poor healing	• Bring inhaler, prophylactic dose • Avoid triggers (cold/dust) • Late morning appointment • Supplementary oxygen? • Drug Px:? steroid use, theophylline may be potentiated by liver enzyme blockers
Cardiac – Valvular repair (patient unsure) – PFO – HTN	MI Stroke, DVT I.E. AB Prophy	confirm cardiac history Warfarin, INR check(therapeutic INR ~2.5), morning appointments, haemostat measures, consent If require AB cover Other related medications e.g. Beta Blocker CCB, ACE Inh etc
Social – Financial constraints – Smoking	Poor attendance Treatment option limits	• Referral for social assistance/ charitable dental service p.r.n. • Smoking cessation
Others - Rheumatoid arthritis – Visual impairment – Anxiety (generalised)	Fall risk	• Barrier free access, fall prevention • Dental Behavioural Support

Clinical Scenario
A 63 year old man came into the clinic with a painful upper right wisdom tooth. It affects his eating and sleeping. He has not seen the dentist for around 10 years due to dental anxiety.

Medical History
- Asthma. Poorly controlled with exacerbations almost every 2 weeks, and admission to hospital 1-3 times annually. Not all attacks are subdued with salbutamol inhaler. No known triggers, although cold air and dust are reported to possibly worsen it. Does not regularly follow up with physician.
- Mild dental anxiety - mainly to sound of ultrasonic and handpieces.
- Rheumatoid arthritis with left knee swollen
- Reduced BMI
- Smokes ~ 5 cigarettes a day now, cut down from ~ 20 sticks a day 20 years ago.
- History of cataract surgery on right eye, with some residual visual impairment

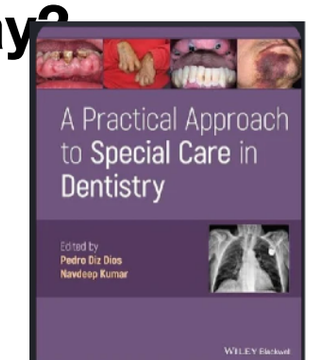
Medications
- Salbutamol 200mcg inhaler
- Fluticasone 500mcg with Salmeterol 50mcg inhaler
- Lignosus rhinocerus (traditional Chinese tonic, 虎乳芝)

Dental History
- Uses an acrylic partial upper denture fabricated over 10 years ago that overlays retaine
- Brushes once a day only
- Does not clean/brush denture

Social History
- Low socio-economic status
- Works as a security officer with varying shifts in the morning and overnight
- Divorced, lives alone

Oral examination
- Upper left wisdom tooth with caries into pulp
- Poor oral hygiene
- Rampant caries with other retained roots (see **Figure 1.27.1- Picture of caries / retained roots in a patient with severe asthma**)
- Oral candidiasis on upper palate
- Upper denture with dried debris on fitting and smooth surfaces.

What are your treatment considerations briefly? Can you treat the pain today?



- The tooth extraction should be completed today. Despite assessed to be moderate to high risk, attenuating the specific risks and possessing emergency preparedness are key.
- He will require further fillings, extractions and partial dentures in the future. Dental health education is also important.

CHAPTER 16.4: BARIATRIC PATIENTS

Clinical Scenario

A 55 year old female presents to you complaining of pain in an upper left first molar tooth.

Medical History

- Raised BMI of 46.9 kg/m2 (174cm, 142kg)
- Major Depressive Disorder
- Dental anxiety
- Asthma, well controlled and on follow-up
- Hypertension
- Diabetes mellitus
- Hypercholesterolaemia
- Ischaemic heart disease - controlled angina
- Sleep apnoea: Continuous Positive Airway Pressure (CPAP) device used at night
- GORD
- Osteoarthritis
- Generalised musculoskeletal pain

Medications

- Aspirin
- Glyceryl Trinitrate (GTN) inhaler
- Amlodipine
- Atenolol
- Atorvastatin
- Lansoprazole
- Metformin
- Corticosteroid inhaler
- Salbutamol inhaler

Dental History

- Irregular attender, previous visit over 5 years ago
- Snacks on cakes and biscuits between meals with 10 sweetened beverages daily
- Brushes twice a day with fluoridated toothpaste but unable to reach upper posterior teeth
- Dental anxiety associated with injections and drilling sensation / sounds; avoids fillings and prefers dental extractions
- No history of dental sedation or GA for dental treatment

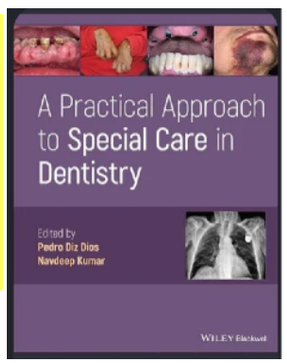
Social History

- Divorced and lives alone
- Has two sons who are married and live separately
- Rarely leaves her home
- No consumption of tobacco, alcohol or recreational drugs
- Requires hospital transport to attend appointments
- Mobility: although able to stand for short periods, using a bariatric wheelchair to attend hospital appointments

Oral examination

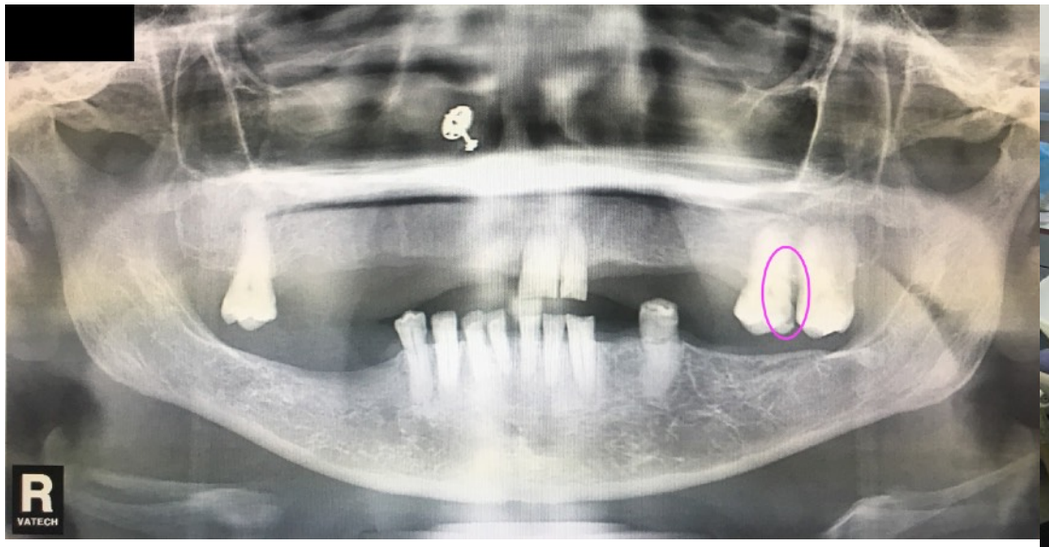
- Poor visualisation of the mouth due to extensive adipose tissue intra-orally limiting visual access to the posterior teeth
- Generalised soft deposits and food debris
- Generalised gingival inflammation
- Partially edentate
- Food packing between the UL6 and UL7
- Caries: UL6 distal; tender on palpation; grade 1 mobile
- Generalised tooth surface loss (erosion)

1. Create a Medical Category - Risk Assessment - Modifications table.
2. What additional factors do you have to consider when undertaking a risk assessment of this patient
3. The patient consent to extraction of the carious upper left first molar. How would you modify the delivery of dental treatment?
4. Criteria for referring the Bariatric patients. How is ASA grading for them like?



Radiograph

- Patient unable to tolerate intra-oral radiographs due to limited space / access
- Difficulty with panoramic radiograph due to tissue mass around shoulders obstructing movement of emission tube and cartridge frame (**Figure 1.16.4.1**)
- The patient was referred to another practice with a wider DPT machine. (**Figure 1.16.4.2**)
- Confirmed clinical findings and caries UL6 distal
- Generalised bone loss (10-30%)



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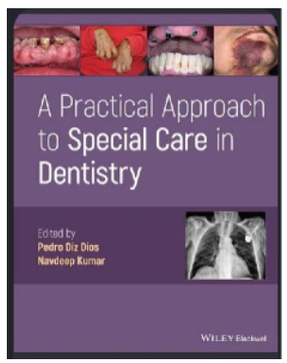


Clinical Scenario

An 80 year old lady was admitted via a trolley bed from the wards. She was assessed by a physician and has a mobile lower incisor indicated for removal in view of aspiration risk.

Medical History

- Severe Multi-infarct (vascular) dementia - fluctuating consciousness between stupor and hypersomnia. Bedridden. Double incontinence.
- Aspiration pneumonia, hospitalised over 2 incidents over the past 2 months.
- Thromboembolic stroke, Right Middle Cerebral Artery stroke 3 years ago.
- Ischaemic heart disease
- Severe dysphagia- nasogastric tube fed. nil-by-mouth
- History of laryngeal carcinoma in 1994 treated with Conventional radiotherapy (70 Gys 33 Fractions)
- Methicillin-resistant Staphylococcus aureus (MRSA) positive
- Hypertension

Medications

- Omeprazole
- Plavix (clopidogrel)
- Timolol
- Neurobion
- Vitamin D and calcium supplements

1. Create a Medical Category - Risk Assessment - Modifications table.
2. What medical disorders/conditions are associated with end-of-life care?
3. The patient consent to extraction of the carious upper left first molar. How would you modify the delivery of dental treatment?
4. Criteria for referring the Bariatric patients. How is ASA grading for them like?

Dental History

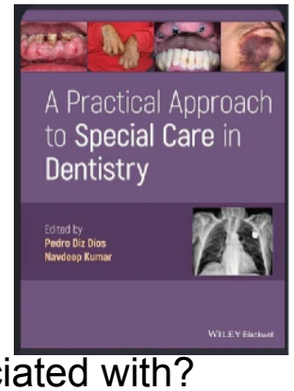
- Has not received oral hygiene assistance at the long-term care facility over the past year
- Nasogastric tube fed for 2 years (nil-by-mouth)
- Constantly grinds and mouth breathes almost entirely

Social History

- Chinese ethnicity
- Stays in a hospice and is bedridden
- Arrived by arranged transport from hospice
- Husband is the main caregiver and next-of-kin

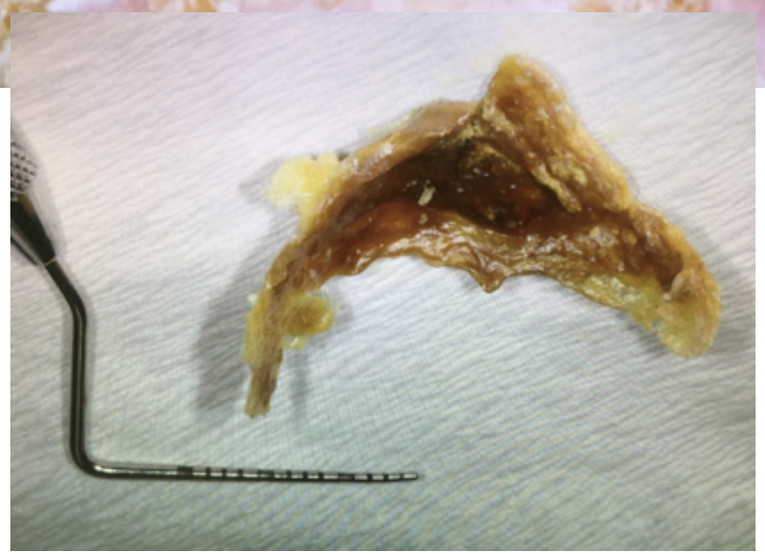
Oral Examination

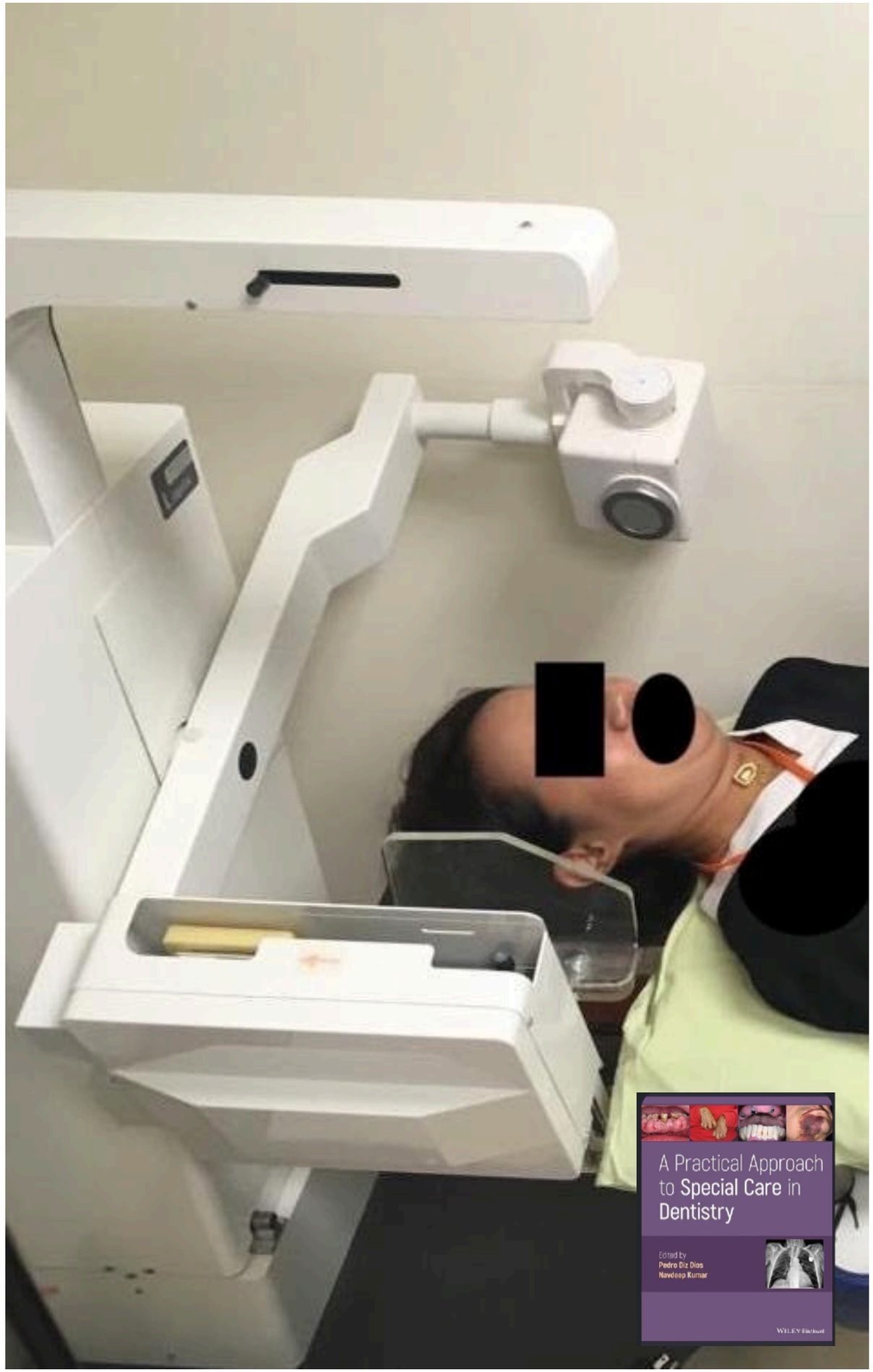
- Challenging behaviour during examination
- Trismus affecting ability to visualise palatal and lingual surfaces
- Mobile lower right central incisor
- Uncontrolled bruxism and clenching
- Dry secretions on tooth surfaces and palate (Figure 16.6.1 and Figure 16.6.2)



1. What other issues and concerns is end of life care often associated with?

Dry secretion consists of a dehydrated mix of secretions from minor salivary glands in the palate and exfoliated epidermal or mucosal tissues. Notice how it sheds off from the matt mucosal surfaces, and is also present over occlusal surfaces of teeth.





CHAPTER 26. Chronic obstructive pulmonary disease

SECTION I

Clinical Scenario
A 67 year old man turned up at the charity clinic that you volunteer at. He complains of “weakening” and “crumbling” teeth.

Medical History:

- Chronic Obstructive Pulmonary Disease - irregular in medical follow-up
    - FEV1, or forced expiratory volume in 1 sec, was 38% of normal predicted. Recent chest x-rays showed flattened diaphragm,
    - SpO2 is 93% on room air, heart rate 94/min
    - Respiratory rate is 24 per minute and shallow
    - Dry hacking non-productive cough, pitting oedema
- Hypertension ~152/85
- Hyperlipidaemia
- Asthma
- Others: Ex-smoker with 70 pack-year cigarette history, reduced BMI

Medication

- Prednisolone 10mg
- Ipratropium bromide + albuterol sulfate combination inhaler
- Salbutamol inhaler
- Simvastatin
- Enalapril

Dental History

- Brushes once a day with manual toothbrush
- Irregular dental attender
- Does not use interdental brushing aid

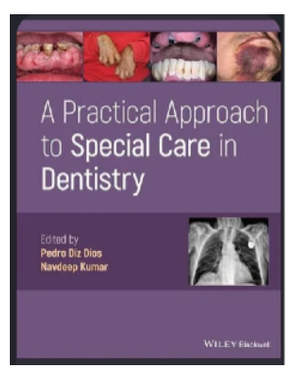
Social History

- Works at the local hawker centre for almost 50 years, exposure to long-term inhalation of smoke (see **Figure 1.26.1**)
- Hokkien-speaking (a type of Mandarin dialect)
- Smoked for 50 years, around 1.5 pack a day. Quit smoking 2 years ago, reportedly due to rising tobacco tax and physician advice
- Receiving social assistance
- Stays with wife, has two married children who visit infrequently

Oral Examination

- Prolonged oral health neglect
- Multiple interproximal caries
- Erosion lesions and root caries

1. Create a Medical Category - Risk Assessment - Modifications table.
2. How do you assess the severity of the patient’s COPD
3. What are the treatment options for managing multiple caries & high caries risk?
4. What other factors do you need to consider that can affect treatment success?



CHAPTER 59. HOMELESSNESS

CLINICAL SCENARIO

You received a referral letter from the local prison service regarding a 64 year old man emplaced on a “Mandatory Aftercare Scheme” for ex-offenders. He has multiple medical conditions, unemployed, and is currently homeless. He is referred to exclude dental causes of recurrent sinusitis.

Medical History

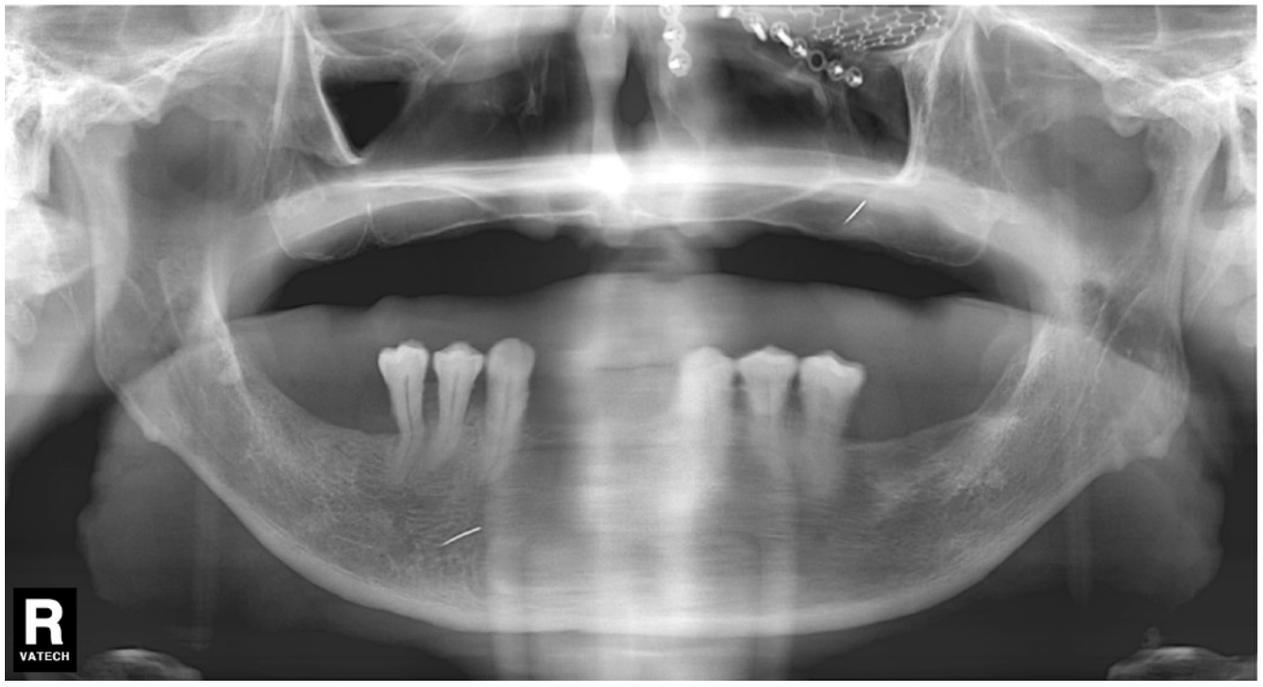
- Hepatitis C on half yearly follow-up
- Latent tuberculosis
- Chronic obstructive pulmonary disease
- Mild asthma
- Chronic sinusitis and allergic rhinitis.
- Gastric reflux - undergoing medical follow-up
- Others: renal cyst, benign prostate hypertrophy
- H/O: four surgical repair of oral antral fistula,
- previous injecting drug user, ex-smoker, heavy alcohol use

Medications

- Omeprazole
- Salbutamol inhaler (200mcg)
- Fluticasone inhaler twice daily
- Array of traditional Chinese tonics and herbs

Dental history

- Brushes once a day with hard toothbrush
- No comprehensive dental treatment for over a decade
- Irregular dental attender, visits only when symptoms arise
- Prison dental service provided extractions only
- Mouth breather, daily regurgitation of gastric contents



Social History

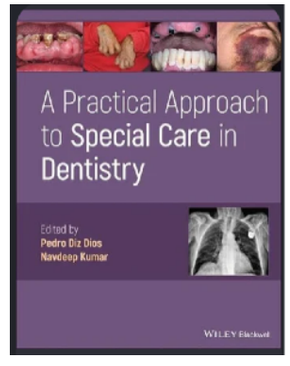
- Ex offender, released from prison 1 month ago
- Staying at the void deck of an estate, and moving to a “Halfway Home” after being picked up by community services
- Unemployed due to medical conditions
- Separated from wife for 20 years, have not contacted daughter over 10 years
- Distant relationship with siblings

Oral Examination

- Edentulous upper jaw with frictional keratosis and traumatised ridge from lower teeth
- Lower teeth with very poor periodontal health
- No obvious sinus tract was seen

Radiographs

1. Create a Medical Category - Risk Assessment - Modifications table.
2. What cross-infectivity steps would you take?
3. What other (non-medical) factors do you need to consider that can affect treatment success?



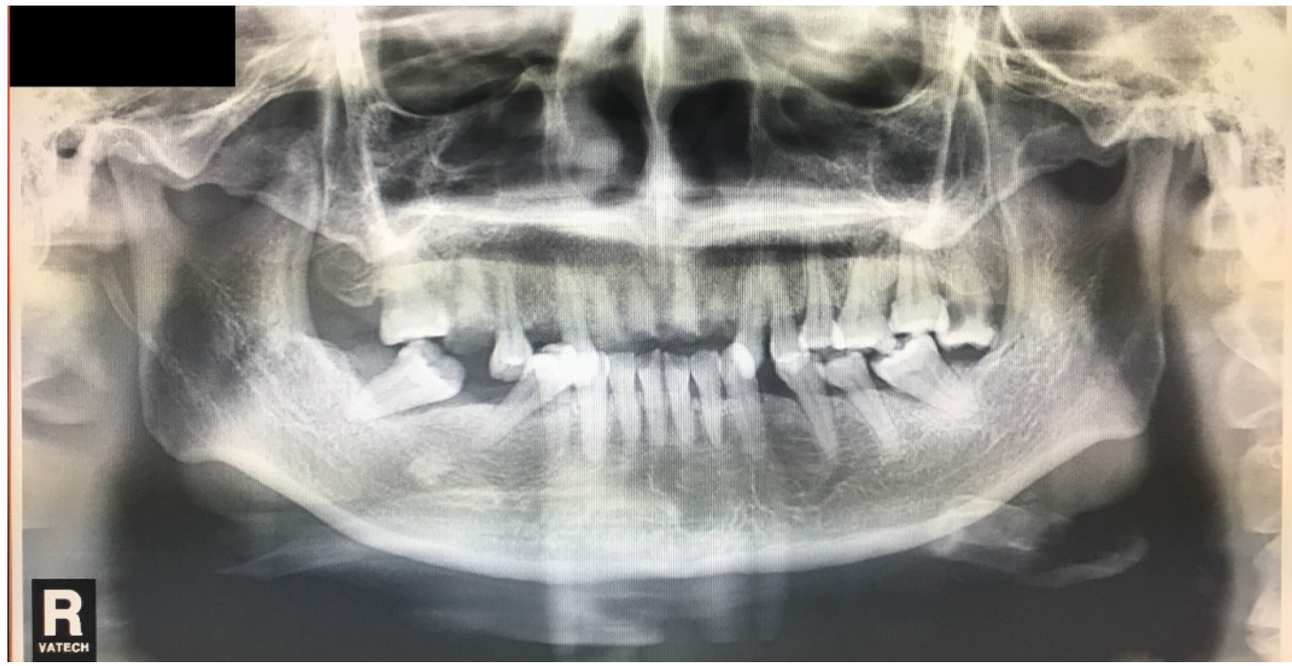
45 y.o. male

MH:
- Down's syndrome
- Moderate intellectual disability
- Autism spectrum disorder
- Epilepsy
- Allergic Rhinitis
- Eczema
- childhood asthma
- mild HTN (baseline 139/80)
- Diabetes mellitus Mild
- Osteoporosis (very low BMD)

MED: Epilim, Bisphosphonates, metformin
Drug Allergy: Penicillin (Rashes)

DH:
- occasional Toothbrushing once a day
- last visit 1 year ago

SH:
- 80 year old mum is main caregiver
- 82 year old dad cab driver



1. Create a Medical Category - Risk Assessment - Modifications table.
2. What type of drug route would bisphosphonates likely be?
3. You saw the patient's toenail whilst having dental treatment - how do you think this can affect our dental treatment delivery?
4. Consider different types of behavioural supports, could you list the risk/limitations of each based on pat