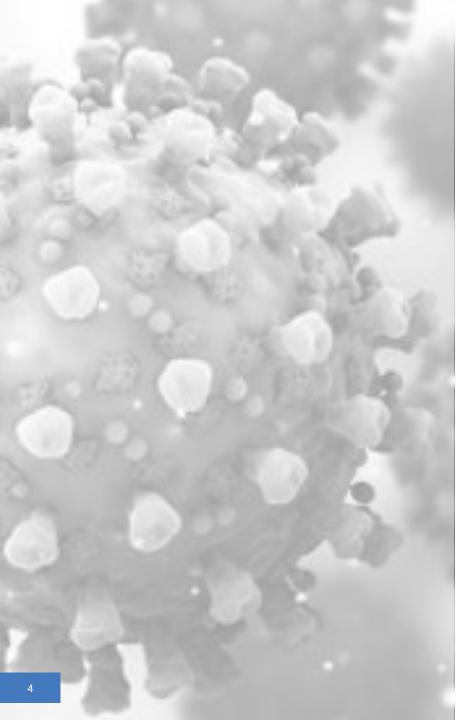


DISCLAIMER

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- ADA- "What constitutes a dental emergency?" www.ADA.ORG/VIRUS



The management of Covid-19 in the context of this presentation relates to:

The protection of front line dental personal.

 The safeguarding and protection of patients visiting an emergency dental clinic.

The Challenge

- When a patient enters the clinic, we do not know if they are COVI-19 positive
- We are able to make a risk assessment through triage, but many patients have no symptoms of COVID-19, particularly at early onset
- The risk is therefore, as the virus spreads throughout all populations is significant
- For this reason, all patients should be assumed to be at risk to the operator and team and a potential source of infection



WHY Dental Emergency Clinics during lock-down

- Emergency clinics for dentistry should set up to <u>avoid the strain</u> on the country healthcare system, so that medical emergencies can be handled by the healthcare system.
- There is insufficient capacity within the hospital system to cope with dental emergencies. During this Covid-19 active period <u>all</u> routine dental treatment should cease.
- Only emergency treatment is to be considered.

Example Situation UK

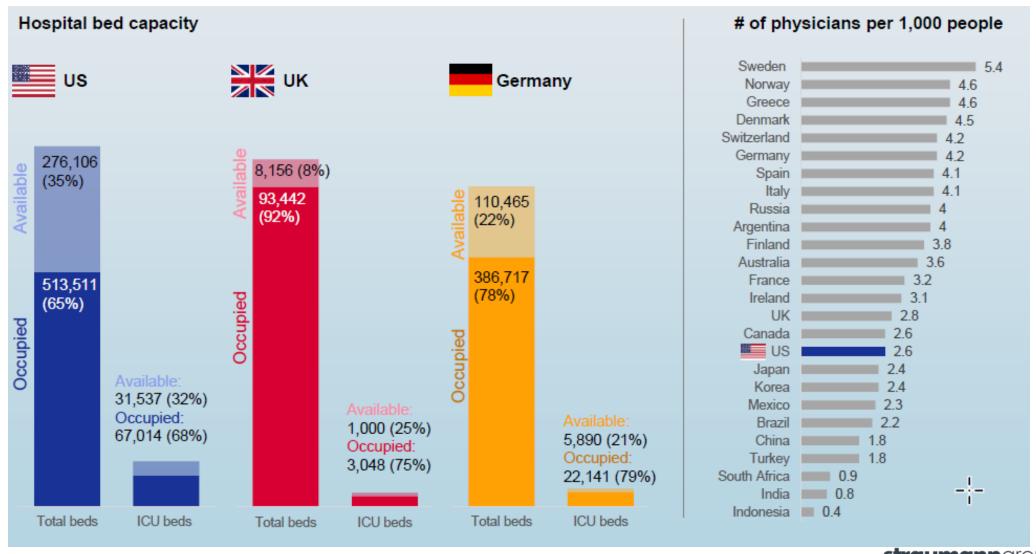
- Example; The UK emergency figures state that approximately 20,000 patients
 request emergency care per day. On this basis the UK would require 1'428
 centres.
- Centres offering x 4 chair service would reduce the requirement to 357.
- Distribution of clinics should be calculated on **population density per area** (and should not be based just on city locations).

• **CAUTION there will be increased risk to workforce associated with multiple room operation and the aerosol the risk will be compounded. In multiple chair clinics respirator suits should be considered appropriate. PPE and isolation of rooms will be a significant factor to be considered in planning the emergency centre. Ventilation will need to be considered.

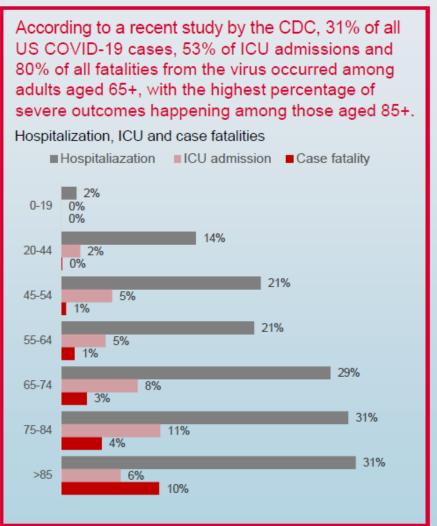


- Hospitals, intensive care units, medical equipment (ventilators, PPE) and available beds in China and Italy were overrun in less than 3-4 weeks.
- Similar vulnerabilities have become apparent in the US and many other countries.
- While many of our global healthcare systems are robust, they are not built for the speed and "surge capacity" that COVID-19 requires.

Hospital bed capacity and physician availability likely to become a major bottleneck

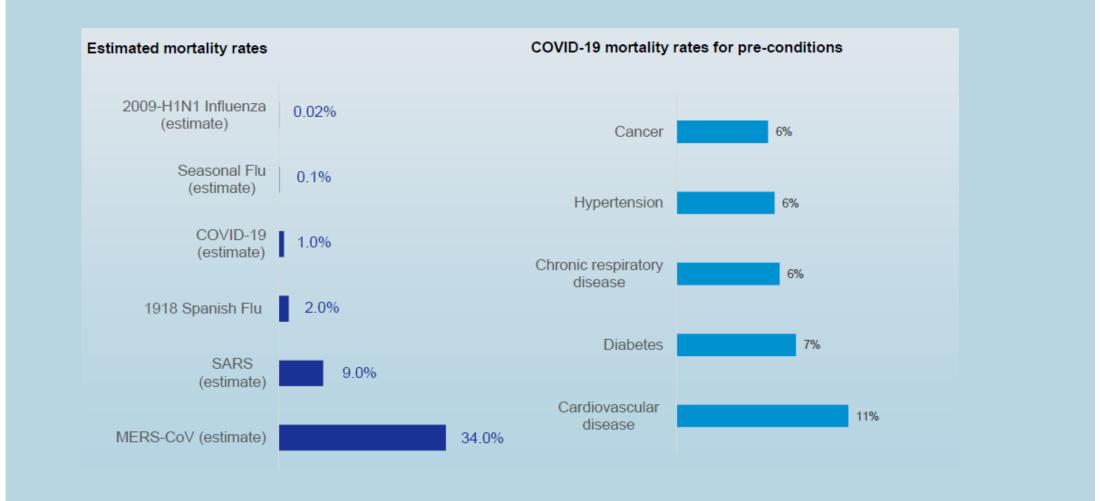


Testing, Hospitalizations, & Mortality Rates





Comparative Mortality Rate Estimates. Particularly elderly and patients with co-morbidities in danger









What is a Dental Emergency?

Dental Emergencies fall into three distinct categories

Life Threatening*

- Uncontrollable Bleeding in a medically compromised patient
- Tracking Cellulitis, restricting or compromising the airway
- Severe facial trauma
- Severe trauma which restricts or compromises the airway

Priority-1 Urgent

- Severe Pain caused by acute pulpitis
- Severe pain caused by third molar pericoronitis
- Osteitis- Dry Socket
- Acute Abscess
- Tooth fracture causing severe pain
- Dental trauma: Luxation/ Avulsion

Priority-2 Not Urgent but Significant

- Extensive Caries
- Suture removal
- Traumatic Denture
- Temporary Filling
- Orthodontic wire trauma
- Persistent bleeding in a healthy patient within 12-24 hours of extraction.



^{*}Life threatening emergencies should be attended to by appropriately qualified medical practitioners in a <u>hospital</u> environment and should not be treated in "Dental Emergency Centres".

Guidelines on the Triage of Priority 1 Cases

Management of severe pain caused by acute pulpitis

- Where possible and practical, access the cavity using electric motor slow hand piece using diamond and tungsten burs using high volume aspiration to access pulp chamber.
- Use single files to extirpate contents, treat with approved irrigant and cleaning and disinfection solutions.
- Dry only with paper points and cotton wool no triple syringe use.
- Pack and dress with a pre mixed single use obtundent (e.g. ZnOEug tube) or leave access cavity open for drainage and only apply a cotton wool plug.
- Administer advice, analgesics and antibiotics

Management of severe pain caused by third molar pericoronitis

- Oral hygiene instruction.(No active cleaning or use of ultrasonic)
- Irrigation under gum flap with approved medicament (disposable syringe and disposable blunt tip needle)
- In cases where there is trauma from the cusp of an opposing third molar, use a slow hand piece with single use bur, no irrigation to gently reduce the offending cusp tip using high volume aspiration.
- Administer appropriate antibiotics and analgesics.

Management of Osteitis- Dry Socket

- Gentle irrigation of area using saline to remove debris if required.
- Placement of obtundent material e.g. Alvogyl or "other"
- Oral hygiene advice including rinsing technique
- Administer appropriate antibiotics and analgesics.

Management of Acute Abscess

- Where there is a clear area of suppuration (pointing), using high volume aspiration, lance the area under topical anaesthetic to allow decompression. Open and dress the tooth as in the case of "management of acute pulpitis".
- Where there is no clear area of suppuration or tissue "pointing", and only cellulitis do not attempt to lance the area.
- If this has occurred to a root treated tooth do not attempt to remove the root treatment in place. Lance if suppuration evident, do not lance if there is no suppuration (evidence of "pointing")
- In all cases treat with the appropriate strength of antibiotic and analgesics.

Management of tooth fracture causing severe pain.

- Smooth any sharp edges using slow handpiece and single use bur. Diagnose cause of pain. If pain is of pulpal origin cause by pulpal exposure, treat as "acute pulpitis"
- Dress tooth with a temporary dressing to reduce soft tissue trauma and maintain any dressing placed.
- Administer antibiotic and analgesics as appropriate to the clinical situation

Management of Dental trauma: Luxation/ Avulsion

- Standard management of Luxation or avulsion should be carried out avoiding the use of the triple syringe or aerosol producing treatments where possible.
- Drying areas can be achieved with cotton wool rolls and tissues prior to composite splint placement. Make labial facing splints for ease
- (cosmetic consideration is not a primary consideration. Stabilisation of the tooth is the priority, once re-positioned.
- · It is easier to obtain moisture control labially.

Guidelines on the Triage of Priority 2 Cases

Moderate and Extensive Caries

- In the absence of severe pain extensive caries is not an emergency.
- In a healthy patient the patient should be asked to self isolate for 14 days after which they may be seen. The risk to staff members out weights the short delay in treatment.
- Severe pain is dealt with under Urgent 1 cases.

Traumatic Dentures

- Is not a dental emergency. Ask the patient to remove the denture until such time that routine care becomes available.
- Adjusting a denture will risk causing reduction in social distancing and air borne contamination, and as such the risk outweighs the benefit

Orthodontic wire trauma

- Appropriate telephone triage is required. If a bracket is loose but not causing pain it is **not** an emergency.
- If a wire is "sharp" but not causing **acute** pain, not digging in to soft tissue, it is **not** an emergency.
- If a wire traumatises soft tissues causing acute and severe pain the patient will be seen only for a wire "cut".

Suture Removal

- Suture Removal is not an immediate dental emergency. Removal of a suture will risk causing reduction in social distancing and contamination and as such the risk outweighs the benefit.
- Irritation, "soreness" may be dealt with using mouth rinses, oral hygiene advice and mild analgesics

Temporary Filling

- In the absence of severe pain is not a dental emergency
- The patient may be sent a temporary filling kit to self administer to avoid sharpness of a cavity against soft tissue.
- In a case of severe and acute pain refer to Urgent-1 Case management

Persistent bleeding in a healthy patient within 12-24 hours of extraction.

- This is not a dental emergency. Triage should ask the patient to use a swab or clean handkerchief, make wet, squeeze excess moisture out and pack the bleeding area and apply pressure by biting.
- The pack should be left undisturbed for 10 minutes. In a healthy patient his should be sufficient.
- If bleeding still persists revert to Urgent-1 case management.

What is not an Emergency?

What is NOT an emergency

- Examinations (all types)
- Orthodontics (except wire trauma, bracket displacement- inhalation risk)
- Oral hygiene procedures
- Periodontal treatment
- Fillings
- All routine dental treatment
- Cone beam CT
- Routine radiographs
- Study models
- Intra oral scans
- Impressions (for routine dental treatments)
- Crowns and bridges preparation

- Re-cementation of crowns and bridges or provisional crowns and bridges
- Loss of implant cover screws
- Asymptomatic carious lesions
- Extractions. (If absolutely essential should be hospital treated)
- Appointment for "convenience"
- · Aesthetic or cosmetic treatments.
- Routine endodontics and re-treatments
- Planned oral surgery procedures e.g. apicectomy, gingival correction
- Denture fabrication
- Denture adjustment
- Retainer repairs



Requirements

- A network of dedicated emergency clinics should be established with strict protocols around staffing, hygiene and access.
- The number of clinics required should be based on the local population and local data on "usual emergency requirements".
- A one chair, eight-hour shift, will have up to a 14 patients per shift capacity allowing for examination and treatment time and the cleaning cycle between patients.

Protection and Safety for Staff

- A test to determine if a person has had COVID-19 is to be distributed imminently
- It is essential that staff working at the Emergency clinics are to be tested as a priority
- Clinics should ideally be staffed by those who have tested positive to a <u>past infection</u>, where they will have developed a "base line immunity. (Clearly, not someone who is potentially actively infected)

Accepting emergency patients

- A clear message should be communicated to the wider audience on how patients may contact these clinics (central call centre or advertising local numbers)- use of social media will be important. - This should be by country and region in design.
- A patient requiring emergency care should be phoned or "clinical video link" triaged in all cases, prior to being accepted at the clinic.
- A detailed questionnaire to cover Covid-19 important questions is essential. (Examples available).

(NOTE: Skype, Facetime, Teams etc. are not secure encrypted video links. A useful site www.doxy.me for encrypted clinical video conferencing with patients. 124-bit encryption or for more frequent use, consider DentoGo Virtual Consult by Straumann during COVID 19)

Triage and Primary Management

- Triage should be strictly managed, allocating the correct time for each
 patient to be <u>seen and treated</u>. Recall appointments should not be
 planned for. The clinics should have medicines available as the clinic and
 not "a prescription to take to a pharmacy. (avoid contact).
- Where a patient is thought to be Covid +Ve or deemed to be high risk, access to the clinic should be resisted and antibiotics and pain killers used for a holding period of 3 weeks. This will mean that the "viral load" will be minimised. There is much evidence to support the need for reduction of the "viral load". Failing this Covid+Ve patients should only be seen in hospital.

Triage Questions relating to Covid-19 Risk

- Have you had Covid-19?
- Do you have Covid-19?
- Do you have a fever, illness, sore throat or persistent cough?
- Have you had any of these symptoms in the last 14 days?
- Have you recently travelled to and returned from a country where Covid-19 is present?
- Have you come into contact with anyone experiencing any of these symptoms?
- Has any member of your family exhibited any of these symptoms?

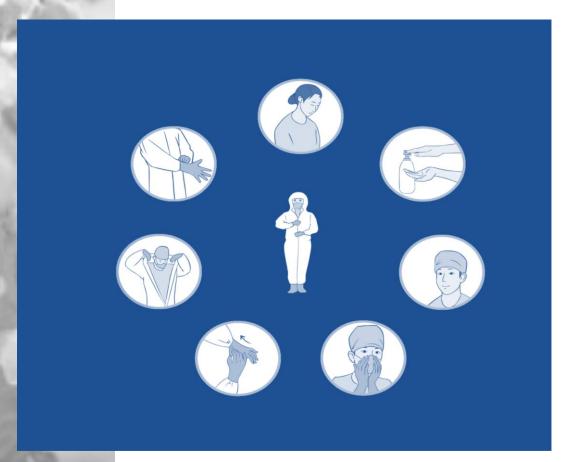
Triage and Primary Management

- A clear list of "what constitutes a **dental emergency**" should be standardised and circulated. e.g. Pain/ Infection/ Acute trauma.
- The clinics should be properly equipped with the correct **high-quality PPE** equipment including fitted **FFP3 masks**. (High volume aspiration is essential). Disposable materials and examination equipment as far as possible. Separate and dedicated waste disposal units.
- (Training on correct use of PPE will be important as many dentists will never have used these items).

Staff Workflow Management

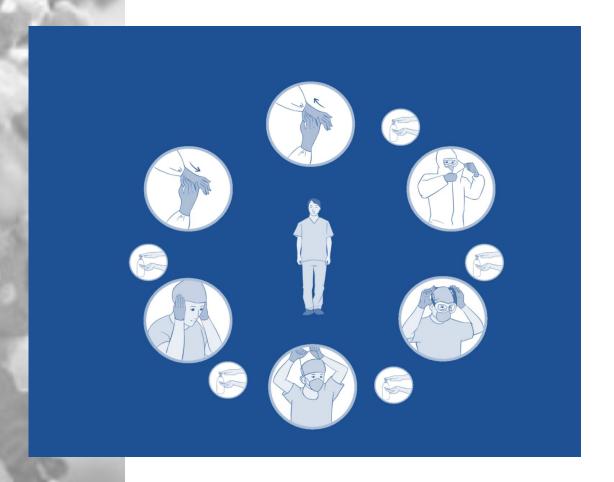
- Before undertaking attendance at an emergency clinic staff must undergo training to ensure that they know how to put on and remove personal protective equipment.
- The staff teams should be divided into two teams. Each team should be limited to a maximum of 4 hours of working in a Covid-19 risk environment.
- Working environment cleaning should continue independent of the teams on a continuous basis. Continual disinfection or regularly used hard surfaces is essential to reduce "viral load".

Gowning Procedure



- Change into work clothes and shoes.
- Wash hands and disinfect
- Place disposable cap
- Place mask (FPP3)
- Put on nitrile gloves
- Put on protective gown and goggles
- Put on second pair of gloves

Gown Removal Procedure



- Remove gloves (outer)
- Remove gown
- Remove goggles
- Remove mask
- Remove cap
- Wash and disinfect primary gloves
- Remove gloves
- Wash hands

Management at clinic level

- Patients attending the emergency clinic must hand sanitise as they enter the building and then be asked to put on a disposable mask and a pair of non-latex gloves. To be issued to the patient on entry.
- Only a single patient may be permitted to enter the waiting area at any one time in order to avoid overcrowding and cross contamination. No family (or other) members may be admitted.
- The duration of the patient's visit shall be minimised, to avoid cross infection, **however** enough time should be allocated to ensure that the emergency is dealt with at the same visit. **Repeat visit are to be avoided.**

Management at clinic level

- The waiting area must be clear of all magazines and objects. A chair only, and all surfaces must be wipe clean. When the patient leaves the waiting room to enter the clinic a separate nurse should clean and wipe all surfaces that may have come in contact with the patient.
- The clinics should operate with a full time "cleaning nurse" continually wiping down all surfaces during the procedure, and after the patient has been discharged.

Disinfection of Surfaces

- Visible pollutants should be completely removed before disinfection, and handled in accordance with disposal procedures of blood spills.
- Wipe the surfaces with disinfecting wipes.
- Perform disinfection procedure at the commencement of the clinic and after every patient.
- Wipe cleaner regions first, then more contaminated regions.
- (First wipe the object surfaces that are not frequently touched, and then wipe the object surfaces that are frequently touched.
- Once an object surface is wiped clean, replace the used wipe with a new one).

Management at clinic level

- The use of aerosols should be avoided and slow handpieces using single use tungsten burs should be considered where access is required. (High volume aspiration is recommended in all cases.)
- The use of disposable dental instruments and materials is advised.
- There will be an anticipated increase the use of prescription medicines.
- Follow up care should be via a phone call or secure clinical video call.

Level 2 Basic examination. Non- invasive- No aerosol in terms of PPE requires;

- Disposable surgical cap
- Medical protective mask (FPP3)
- Work uniform (not home clothes)
- Disposable medical protective gown
- Disposable latex gloves -
- Goggles
- Cleaning protocol as described

Level 3 When the creation of an aerosol may occur

- Disposable surgical cap
- Medical protective mask (FPP3)
- Work uniform (not home clothes)
- Disposable medical protective uniform (full disposable suit)
- Disposable latex gloves x 2 + 1 as a minimum
- Full-face respirator.

Covid -19 Confirmed Infected

- When a patient is known to be Covid +Ve access to treatment should be withheld for a period of three weeks after which, a level 3 approach may be taken.
- Palliative care may be offered to Covid +Ve patients in the form of antibiotics and analgesics and single use temporary restoration kits to obturate cavities- applied by the patient only.

^{*}If this is not possible the patient, as a last resort, should be referred to a fully equipped hospital setting (this should be avoided wherever possible).



Rescheduling coordination for Dental Patients

Clinic in the tele -medic mode

- Each scheduled Patient should be contacted to explain the necessity of the visit change.
- Cancellation or change triage
- New appointment after triage if necessary

Call Center:

- Call in service
- Clinic's support in rescheduling triage
- New appointments after triage if necessary



Triage on each of contact points:

- 1. Call Center of telemedical Clinic
- 2. Reception desk
- 3. Dentist directly before the visit



Visit in Emergency Dental Clinics (EDC) for triage positive Patients

Telemedical Clinic (regular Clinic transformed to telemedical mode)

Cancellation/rescheduling visits via phone + triage

- Clinic can take Patients calls as well as Call Center calls (when consultant requires support)
- Staff at the Telemedical Clinic (Clinic is not open for Patients, it serves only telemedical activity but by the doctor and authorized Staff)
- Clinic employees reschedule Patients as per available dates and order.
- · Patients may be split by specialization.
- Some Patients are required for emergency visits in Emergency Dental Clinics (EDC)
- Doctors in the Clinic are experts to support in the triage and to decide of follow up actions with the Patients.

Category 1. Patient with cold infection or coronavirus-like symptoms.

First time visit, no urgent need for consultation. With or without any infection or COVID.

If the visit does not meet accepted criteria on epidemiological assessment, appointment is to be re-scheduled.

NOTE: If coronavirus symptoms interviewed – Patient directed to Epidemiological Emergency Line. No admittance.

Category 2. Patients with pain, urgent need for assistance, with dental treatment which needs to be continued immediately.

Triage and qualification. Patient to be scheduled for the visit in EDC.

ATTENTION! If coronavirus symptoms interviewed - Patient directed to Epidemiological **Emergency Line. No admittance.**

Category 3. Patient requires visit due to his condition but not urgent - can be scheduled next 3-5 days

Triage completed directly before the visit.

ATTENTION! If coronavirus symptoms interviewed – Patient directed to Epidemiological **Emergency Line. No admittance.**

Visits cancellation due to epidemic situation and safety concerns. If Your health situation does not require urgent visit please reschedule.

If Patient complains or insists please redirect to Medical Expert



Dental Triage via Dental Call Center

Patient's selection based on incoming calls from Patients

Triage is needed to qualify Patients which needs to be scheduled for the Emergency Dental Clinic (EDC) for the visit **THE SAME DAY** Patients which are not qualified to be scheduled have the visit cancelled or re-scheduled (if possible)

Category 1. Patient with infection symptoms, infected or exposed to coronavirus No visit accepted. Patient directed to Epidemiological Emergency Line.

Category 2. Negative triage

Patient not qualified for the urgent visit in the EDC.

Scheduling the visit in next possible date if schedule is open.

ATTENTION! If coronavirus symptoms interviewed – patient directed to Epidemiological Emergency Line. No admittance.

Category 3. Positive triage

Patient qualified for the urgent (the same day) visit in the EDC

Scheduled for an empty slot – no time flexibility and location of centre fixed (only appointed Emergency Dental Clinics)

NOTE: If coronavirus symptoms interviewed – patient directed to Epidemiological Emergency Line. <u>No admittance</u>

Visits cancellation due to epidemic situation and safety concerns. If Your health situation does not require urgent visit please reschedule.

If Patient complains or insists please redirect to Medical Expert



Emergency Dental Clinic

Emergency Dental Clinics (EDC)

Patients are directed for the specific EDC after dental triage done over the call center. Scheduled on specific time the same day. No free entrance to the EDC. If Patient comes to the EDC straight from the street – needs to pass the call center triage and only after it could be scheduled and appointed for the visit. All EDC have doors locked with the bell ring outside to call the personnel.

No assisting persons for Patients accepted! If Patient is not 18yo or Patient requires attendance – the assisting person also requires triage!

Category 1. Patient from triage

After triage Patient appears in the EDC

Patients verification based on name, date of birth and last 2 digits of ID number or passport. Patient issued gloves and mask at door of EDC. Patient does not come to the front desk

Category 2. Patient not from triage

Not coordinated Patient appearing in the EDC

No patient can walk in unscheduled to EDC. Entrance and exit is coordinated and manager by the authorized staff. Patient not pre-triaged need to connect to call center, pass the triage and schedule the visit. Triage and visit need to be the same day – otherwise – triage need to be repeated directly before the visit.

Next day appointment

Call Centre: Information for the triage in the day of visit (due to possible health condition change with the Patient)

EDC: By the end of each day the list of Patients scheduled for next day is emailed to the triage place (call center or telemedical Clinic)

The EDC set-up needs to be done at the highest epidemiological standards – shield for the front desk, no direct contact with the Patient entering the EDC. Patients do not give the ID card but front desk personnel need to check the identity in the system. Patients are not allowed to wait together – visits are scheduled with time distance necessary to clean up and disinfect the interior.

All the emergency means are take for the good health and highest hygienical standards and safety.

Triage – the algorithm for front desk and Dental Call Center

Symptoms disqualifying Patients for the visit

Infection or cold Contact or exposition to the coronavirus Any existing airway obturation or illness

Symptoms investigated during the call which qualify patients directly for the visit scheduled at EDC. Patients do not decide on the day and the EDC – The appointment is given and realised the same day.

Symptoms investigated during the call which qualify Patients for the visit scheduled at EDC but after medical triage

- Acute and severe Pain
- · Oedema, and or significant swelling
- Injury
- Uncontrolled bleeding
- Acute and significant dental infections
- Surgical cases

If at any time the Call Center consultant feels the need for assistance – they should contact the dentist at the EDC prior to confirming the appointment.



For updates Visit:

https://www.straumann.com/group/en/discover/covid19.html

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What constitutes a Dental Emergency ADA guidance

- Bleeding that doesn't stop
- Painful swelling in or around your mouth
- Pain in a tooth, teeth or jaw bone
- Gum infection with pain or swelling
- After surgery treatment (dressing change, stitch removal)
- Broken or knocked out tooth
- Denture adjustment for people receiving radiation or other treatment for cancer
- Snipping or adjusting wire of braces that hurts your cheek or gums
- Biopsy of abnormal tissue



What constitutes a Dental Emergency

ADA guidance

The ADA recognizes that state governments and state dental associations may be best positioned to recommend to the dentists in their regions the amount of time to keep their offices closed to all but emergency care. This is fluid situation and those closest to the issue may best understand the local challenges being faced.

DENTAL EMERGENCY

This guidance may change as the COVID-19 pandemic progresses. Dentists should use their professional judgment in determining a patient's need for urgent or emergency care.

Dental emergencies are potentially life threatening and require immediate treatment to stop ongoing tissue bleeding, alleviate severe pain or infection, and include:

- Uncontrolled bleeding
- Cellulitis or a diffuse soft tissue bacterial infection with intra-oral or extra-oral swelling that potentially compromise the patient's airway
- Trauma involving facial bones, potentially compromising the patient's airway

Urgent dental care focuses on the management of conditions that require immediate attention to relieve severe pain and/or risk of infection and to alleviate the burden on hospital emergency departments. These should be treated as minimally invasively as possible.

- Severe dental pain from pulpal inflammation
- Pericoronitis or third-molar pain
- Surgical post-operative osteitis, dry socket dressing changes
- Abscess, or localized bacterial infection resulting in localized pain and swelling
- Tooth fracture resulting in pain or causing soft tissue trauma
- Dental trauma with avulsion/luxation
- · Dental treatment required prior to critical medical procedures
- Final crown/bridge cementation if the temporary restoration is lost, broken or causing gingival irritation

Other urgent dental care:

- Extensive dental caries or defective restorations causing pain
- Manage with interim restorative techniques when possible (silver diamine fluoride, glass ionomers)
- Suture removal
- Denture adjustment on radiation/ oncology patients
- Denture adjustments or repairs when function impeded
- Replacing temporary filling on endo access openings in patients experiencing pain
- Snipping or adjustment of an orthodontic wire or appliances piercing or ulcerating the oral mucosa

DENTAL NON EMERGENCY PROCEDURES

Routine or non-urgent dental procedures includes but are not limited to:

- Initial or periodic oral examinations and recall visits, including routine radiographs
- Routine dental cleaning and preventive therapies

- Orthodontic procedures other than those to address acute issues (e.g. pain, infection, trauma)
- Extraction of asymptomatic teeth
- Restorative dentistry including treatment of asymptomatic carious lesions
- Aesthetic dental procedures

