



T Level Technical Qualification in Health

Occupational specialism assessment (OSA)

Dental Nursing

Assignment 2 - Structured observations - Distinction

Guide standard exemplification materials (GSEM)

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Introduction

The material within this document relates to the Dental Nursing occupational specialism sample assessment. These exemplification materials are designed to give providers and students an indication of what would be expected for the lowest level of attainment required to achieve a pass or distinction grade.

The examiner commentary is provided to detail the judgements examiners will undertake when examining the student work. This is not intended to replace the information within the qualification specification and providers must refer to this for the content.

In assignment 2, the student must demonstrate knowledge and skills through practical, occupationally relevant, patient scenarios that attests to a student's competence to achieve a licence to practise.

After each live assessment series, authentic student evidence will be published with examiner commentary across the range of achievement.

Scenario 1

Scenario details

An adult patient has an appointment for a posterior composite filling.

Patient profile:

- an adult patient
- can be existing patient or new patient
- should be the last appointment of the day (to allow for a close down of the dental surgery)

Activity description

You will be observed carrying out the following stages to support the composite filling:

- 1(a) Providing and using appropriate personal protective equipment (PPE) whilst preparing for the procedure
- 1(b) Assisting the dentist during the filling procedure, whilst monitoring the patient throughout treatment
- 1(c) Mixing the relevant material to the correct consistency within the required time
- 1(d) Processing instruments at the end of the procedure

After the observation has been completed, you will then answer 4 unseen, follow up questions.

Student evidence

Activity 1(a)

I observe the student washing their hands, following the correct hand washing technique, prior to applying the PPE for preparing the surgery.

I observe the student provide correct PPE for the dentist, themselves, and the patient.

I observe the student provide clean/new gloves, masks, visor and goggles, and apron. The visor is replaced with a clean visor shield. The goggles are checked to see if they are clean. These are all placed in the clean zone ready for use for the dentist.

I observe the student provide PPE for the patient which consists of a new disposable bib and goggles. These are left on the side in no particular area.

The student is wearing clean gloves, mask, protective goggles, and visor whilst wiping down the equipment and the surfaces, when preparing the surgery for the treatment. All put on in the correct order:

- apron
- mask
- eye protection
- gloves

I observe the student clean all the equipment prior to use and wiping down the chair and surfaces. They wear their gloves, mask, and protective glasses and wipe the surfaces with the disinfectant wipes. They also go around the equipment, the X-ray arm, the dental chair, and bracket table, carefully using a clean wipe for each new surface

and then dispose of the wipes in the clinical waste bin.

Then I observe that the PPE is removed safely but not in the correct order, they remove the mask before the eye protection.

Activity 1(b)

I observe the student checking that the patient is comfortable whilst they get into the chair and ask if they have any questions prior to the treatment.

The student constantly checks on the patient's wellbeing throughout the procedure by:

- putting a hand on their shoulder and asking if they are ok
- asking if they need a break throughout
- checking eye movement and checking the hands are not gripped on the chair, and assessing body language

I observe the student check this by getting off their chair and checking where the patient's hands are and by moving position to look directly at the patient's eyes on several occasions through the patient's clear, protective goggles.

I observe the student making highly effective use of both saliva ejector and high-volume suction, thus giving a clear field of vision for the dentist to do his work.

There is no prompting from the dentist during the procedure to do extra suction because the patient is uncomfortable with water filling up in their mouth, this shows the student was very effective in using this.

The student uses the correct equipment for the procedure in the correct way.

I observe the student protecting the patient's eyes with the light curing shield when the light cure is used, but they do not remember to turn the light off after use.

The student is careful when passing the etch, wearing protection, and using the suction effectively.

The student is ready for every stage of treatment and fully independent (does not have to ask the dentist what they needed next).

The student is prepared throughout the procedure. They have everything organised in the order that it is needed. They do not need to get anything extra from drawers or cupboards. All equipment is prepared and ready to use. I observe the student efficiently moving the instruments and materials into the correct zones – keeping to the clean and dirty zones, which are clearly labelled with red and green stickers, the student informed me at the beginning that red is for the dirty zone, and green is for the clean zone.

I observe the student correctly pass the instruments at the correct time.

The student struggles slightly when retracting the tongue whilst aspirating to allow for a clear field of vision.

The student correctly changes their gloves when moving in and out the clean and dirty zones.

Activity 1(c)

I observe the student mixing the lining material effectively with a sterile spatula on the correct surface (glass slab or paper pad).

The material is mixed to the correct consistency, but the student could be quicker as the dentist is trying to keep the area dry whilst waiting for the material.

I observe the student keeping the materials out of the light whilst in use, so the material is not exposed and sets.

The student places a clean tip on the composite syringe before use.

I observe the student effectively use the clean and dirty zones accordingly by ensuring used instruments are placed

in the dirty zone.

Care is taken when using the etch in a highly effective manner by checking that the tip is on correctly and ensuring that everyone was correctly wearing the safety eyewear.

Activity 1(d)

I observe the student place the dirty instruments into the transporter container whilst wearing PPE.

This container is taken to the decontamination area with the lid sealed.

I observe the student check the decontamination equipment testing is up-to-date before use.

I observe the student using fresh liquid in the ultrasonic.

The instruments are carefully rinsed wearing heavy duty gloves. The instruments are placed separately in the ultrasonic bath.

I observe the student remove the instruments from the ultrasonic and place them in the rinse sink.

The student then inspects the instruments under the inspection lamp to check for debris.

Whilst still wearing full PPE, I observe the student place the individual instruments separately in the washer disinfectant. Instruments are not touching wherever possible.

The instruments are removed from the washer disinfectant and placed into pouches.

The PPE is removed in correct order before moving to the clean zone of the decontamination area, hands are washed correctly, and the PPE is replaced with clean PPE.

I observe that the daily testing on the autoclaves is checked by the student before use.

I observe that the correct dates are placed on the pouches.

I observe the student remove the items after cooling and check they are sterile by looking at whether the pouch has changed colour.

I observe the student place the instruments in the clean zone after the sterilisation process.

Unseen question responses

Stage 1(a), Q1: can you explain how wearing a mask helps with infection control?

Masks will help with infection control because they reduce the risk of contamination from airborne infectious particles, if worn correctly, by covering the mouth and nose. They stop germs passing from the dental healthcare professional to the patient and protect the dental team from germs and from any splashes from the patient. They can help protect the dental professional from a common cold or a virus to a major blood-borne diseases.

We also use other methods to prevent infection like gloves. They prevent contamination through touching things, for example, if a piece of equipment used has been in the patient's mouth. This is known as cross-infection. Cross-infection control is very important in the dental surgery. Cross-infection control prevents the spreading of infectious diseases from staff to patient, patient to staff and from one patient to another.

Stage 1(b), Q1: the footswitch is part of the dental operation system – can you explain the function of the footswitch?

The function of the footswitch is mainly to drive the handpiece that you're using. If the footswitch wasn't working properly, we wouldn't be able to use the bur. It wouldn't turn. Sometimes the foot pedal may have a speed control, to control the speed of the handpiece and bur turning.

Some footswitches also enable the 3-in-1 syringe, and they can operate the water, it may have a switch for this. They are normally run from the compressor in the practice.

Stage 1(c), Q1: can you explain the potential advantages of using composite material for a filling?

The advantages of using composite material for a filling is that it doesn't contain mercury which is good, because mercury is toxic. The material is also tooth coloured which patients prefer because it is less visible that they have had treatment on their teeth, although it can be stained and then discolour. Composite material can also be used on any tooth to fill in gaps and we can work it to the shape of the tooth without damaging the tooth. The resin bonds very well to tooth enamel, making fillings less likely to fall out.

Stage 1(d), Q1: can you explain why it is important to safely close down the surgery after use?

It is important to safely close down the surgery because there is dangerous equipment that we wouldn't want to accidentally switch on or be running when no one is in the surgery. For example, the X-ray machines emit radiation which could be really dangerous if someone accidentally pressed the button and turned it on. Other machines could be left on and overheat which could damage the equipment or even start a fire. Compressors left on could overheat and then the dental chairs and dental unit will not work. Water left in the dental lines could lead to legionella if left in the lines overnight and not run through at the end of the day.

We also need to make sure that all equipment and surfaces have been cleaned with disinfectant wipes and are sterile when closing down the surgery. This is to stop contamination.

The contaminated instruments must not be left around and must be taken to the decontamination area for sterilisation. If they were contaminated and left on the side and someone touched it or cut themselves with it then they could get infected.

Scenario 2

Scenario details

An adult patient has an appointment for a hygienist visit **or** dental check up with periodontal treatment (scale and polish with oral hygiene instruction (OHI)). The appointment must also include **either** a full periodontal charting (6 point pocket chart (PPC)) chart **or** Palmer charting with basic periodontal examination (BPE). The student must assist the hygienist or the dentist.

Patient profile:

- an existing **or** new patient
- must have time to discuss oral health with the patient

Activity description

You will be observed carrying out the following stages to support during a scale and polish:

- 2(a) Preparing the surgery and setting up the instrument tray for a simple periodontal procedure (scale and polish)
- 2(b) Updating medical history and contemporaneous notetaking
- 2(c) Charting - BPE/6PPC/tooth notation
- 2(d) Explaining why the patient needs to maintain good oral hygiene

After the observation has been completed, you will then answer 4 unseen, follow up questions.

Student evidence

Activity 2(a)

I observe the student wash their hands, correctly following the correct hand washing technique, prior to applying the PPE for preparing the surgery.

The student wipes down the surgery and all the equipment whilst wearing PPE, the bracket table, the patient chair, all the surfaces of the surgeries, and the cupboards.

I observe the student checking the patient's records after saying that they were going to check which treatment the patient was having today.

I observe the student getting out the sterile instruments.

I observe the set-up of the dentist's instrument tray. The correct instruments are placed on this tray including mirror, probe, tweezers, periodontal probe, ultrasonic scaler, scaler tips, hand scalers, prophy brushes, slow handpiece, 3-in-1 tip, suction tube, and saliva ejector.

I observe the student place any used instruments into the dirty zone.

Activity 2(b)

During the appointment, I observe the student ask the patient to update their medical history and check it is signed.

The student discusses any changes and checks the patient details are correct and points out to the dentist that the

patient has changed their medication.

The student manages to update the address as the patient has moved.

The student updates the patient's medication. They have stopped taking one tablet and have been put onto another.

I observe the student record these onto the correct patient's records.

During the appointment, I observe the student notetaking at the time of the dentist discussing items with the patient (contemporaneous notetaking).

Activity 2(c)

I observe the student set up the computer ready for the charting.

I observe the student correctly perform a BPE score on the correct patient's records.

I observe the student correctly start from the correct side of the mouth that the dentist was working on.

I observe the student save the information.

The student correctly understands the notation of the teeth and adds this to the patient's charting.

All the decayed, missing and filled charting is correct but is completed slowly.

Activity 2(d)

I observe the student gain consent – they ask the patient if it is ok for them to show them how to look after their teeth.

I observe the student discuss oral health with the patient.

I observe the student advise the patient what is right for them.

I observe the student demonstrate and discuss toothbrushing technique, brushing twice a day and brushing the gums.

I observe the student discuss sugar intake, including hidden sugars. They explain that hidden sugars can still damage your teeth and can be found in foods such as yoghurt, packaged fruit, and juice.

I observe the student discuss cessation of smoking (the patient is a smoker) and explain that by smoking, they will have bacteria and tartar building up in their mouth, which can cause gum disease. They also explain that smoking weakens your immune system, which makes it more difficult for the body to fight off the gum disease, if it occurs.

I observe the student discussing interdental cleaning, in this case, flossing.

I observe the student explaining that it is important to brush your teeth to remove plaque and if it is not removed then it can harden and cause cavities in the teeth.

Unseen question responses

Stage 2(a), Q1: can you explain how you would manage a sharps injury?

If there was an injury with a needle, I would make sure that the injury is bleeding gently before placing it under running water. I would then wash the injury with water and soap, dry it gently and put a plaster or dressing on it. After attending to the injury, I would record it in the accident book and let the patient know the nature of the injury and check their medical history for any risks. This must also be reported to the manager. I would also report this to occupational health. This must be done as soon as possible as there is a risk of the blood carrying a blood-borne virus. You should be tested as soon as possible if there is cause for concern. We should not be handling sharps wherever possible. Heavy duty gloves are worn when decontaminating sharp instruments and manual cleaning is replaced with ultrasonic cleaning wherever possible.

Stage 2(b), Q1: can you explain the principles of dental charting?

Dental charting is used to record a patient's dental history, which we have to do by law. By keeping a record of previous dental history, it can help us plan appropriate treatment for the patient. We would also chart if a patient needed treatment. There are different types of dental charting, like baseline charting, which includes teeth that are present, decayed, missing, or filled. We also include what type of materials have been used in treatment. We also chart for gum health which gives a BPE score or a 6PPC. A BPE is a basic periodontal exam and a 6PPC is a 6-point pocket chart. These are updated regularly. These records must be accurate as they are a legal document so must be recorded accurately.

Stage 2(c), Q1: can you explain the difference between Palmer charting and FDI charting?

FDI charting is a 2-number system used for the naming of teeth. The first number tells us what quadrant the tooth in is and the second is what tooth it is. The upper right quadrant is number 1, the upper left quadrant is number 2, the lower left quadrant is number 3 and the lower right quadrant is number 4. So, for example, the upper right lateral incisor would be 12, and the upper left central incisor would be 21.

Palmer charting is what I use more often, and I think it's more common in the UK. Teeth are named by what quadrant they are in and by a number, for example, upper left 2 (or upper left lateral incisor).

Deciduous teeth are recorded with letters in each quadrant.

Stage 2(d), Q1: can you explain how smoking and a high intake of sugar may negatively affect a patient's oral health?

Smoking can negatively affect a patient's oral health and it increases the risk of developing a gum disease or even oral cancer. When you smoke, it increases the amount of bacterial plaque that is produced, which can lead to gum disease. But because smoking also weakens the immune system, it makes it harder to fight off any infection that the smoking can cause. It can hide gum disease by stopping blood supply to the area, therefore, there will be no bleeding on probing which makes the gums look healthy.

With a high intake of sugar, this could be intrinsic or extrinsic, it can also increase the production of bacterial plaque and decay. If the plaque is left on the teeth, it can start to dissolve enamel which is what leads to cavities. The plaque is created by the sugar mixing with saliva that's in the mouth. Sugar is hidden in many of our foods and drink so controlling the frequency of the acid attacks helps with decay. Plaque left on the teeth and gums can harden and lead to gum disease and bone loss too.

Examiner commentary

The student showed alertness and responsiveness to relevant healthcare principles when implementing duty of care and candour during the procedure, when assisting the dentist and monitoring and reassuring the patient. This included the demonstration of exceptional sensitivity while maintaining confidentiality when discussing the patients' medical history. The student showed commitment to following all required standards, codes of conduct, and health and safety requirements/legislation decisively to maintain a safe, healthy working environment when setting up the surgery and closing down the surgery. They demonstrated proficient use of an extensive range of techniques to promote optimum levels of cleanliness and decontamination required for effective infection prevention and control, by demonstrating good use of PPE and using the zoning areas they had put into place.

The student followed current best practice and agreed ways of working which were highly relevant to assisting with scenario specific, care-related tasks consistently and reliably, whilst fully supporting individuals to meet their care and needs including maintaining the individual's privacy and dignity to a high standard by reassuring the patient throughout the procedure and assisting the dentist to a high standard. The student worked effectively as part of a team with the dentist on delegated tasks, supporting individuals to meet their care and needs to a satisfactory standard. The student worked as part of a team throughout the procedure during the filling and giving OHI advice to the patient.

The student recorded extensive and consistent information in the patient's records, highly relevant to tasks by recording the charting of the patients' teeth and making notes of the discussions between the dentist and patient.

The student showed exceptional levels of knowledge about when and what equipment/techniques are used in working as part of a team. The student used relevant equipment accurately including the autoclave safely and consistently following correct monitoring processes when processing the instruments at the end of the day, using the equipment during the procedure, and using the decontamination equipment. The student applied good knowledge of good practice techniques proficiently, following instructions and guidance with energy and enthusiasm when recording the discussion during the examination, charting the BPE results and communicating with the patient.

To improve on their performance, the student could have better demonstrated their understanding of hygiene and decontamination by consistently removing their PPE in the correct order as in activity 1(b), it was removed in the incorrect order. The student also could have placed the pouches the correct way up without overlapping during decontamination, and could develop their knowledge on autoclave cycles to ensure no hesitancy when conducting this again. To develop their technical skills further, the student could have mixed the mixture quicker, so the dentist did not have to keep the moisture away from the area for any longer than necessary. The student could have better demonstrated their knowledge of communication with the patient by using demonstration models and giving leaflets to the patient to ensure that the patient had all the information they needed and fully understood what they were being told. The student could have confirmed the details of the discussion between the dentist and the patient to ensure that notes taken were accurate and correct. Furthermore, the student could have been quicker with certain parts of the charting so that the dentist did not have to repeat the information.

With regards to the unseen questions, the student demonstrated good knowledge overall and the questions answered were detailed and were relevant overall. They demonstrated good knowledge with all the questions, but they could have expanded with more detail to improve their response. For example, in question 1(a), they could have mentioned which viruses are major blood-borne viruses (for example, HIV, hepatitis B and hepatitis C). In the composite question, they mentioned not containing mercury as an advantage, but they do not explain why not containing mercury is an advantage. In question 1(d), they mention that pressing the button for the X-ray could be dangerous because it emits radiation; the student could have explained why radiation is dangerous.

Overall grade descriptors

The performance outcomes form the basis of the overall grading descriptors for pass and distinction grades.

These grading descriptors have been developed to reflect the appropriate level of demand for students of other level 3 qualifications, the threshold competence requirements of the role and have been validated with employers within the sector to describe achievement appropriate to the role.

Grade	Demonstration of attainment
Pass	<p>A pass grade student can:</p> <ul style="list-style-type: none"> • carry out a range of dental procedures to support dental professionals at chairside, by demonstrating adequate knowledge and skill of: <ul style="list-style-type: none"> ○ current legislation regulations to maintain a safe working environment ○ infection control in relation to health technical memorandum (HTM) 01-07 and hand hygiene ○ instruments and equipment used in a dental surgery including correct storage in relation to HTM 01-05 ○ anatomy and physiology ○ dental treatments ○ duty of care to patients in relation to GDC Scope of Practice • provide factual information and up-to-date advice to help patients to maintain and improve their oral health by demonstrating adequate knowledge and skill of: <ul style="list-style-type: none"> ○ oral disease causes and preventions - provide patients with basic diet advice as well as demonstrating the correct techniques for toothbrushing and interdental aids ○ the role of dental professionals and the healthcare team in respect of patient management (for example, checking the patient understands the treatment plan and ensuring further appointments are appropriately booked, if required) • accurately record patients' dental information to contribute to their treatment and dental care on dental charts, using technology where appropriate, by demonstrating adequate knowledge and skill of: <ul style="list-style-type: none"> ○ the principles of dental charting and soft tissue assessment including: <ul style="list-style-type: none"> ▪ federation dentaire internationale (FDI) ▪ Palmer notation ▪ basic periodontal examination (BPE) ▪ periodontal charting ○ the use of information technology and electronic systems within a dental setting • prepare, mix and handle filling and impression material in an appropriate and timely way by demonstrating adequate knowledge and skill of: <ul style="list-style-type: none"> ○ filling and impression materials ○ ensuring there is ventilation

	<ul style="list-style-type: none"> ○ adjusting room temperature accordingly ○ mixing equal amounts of materials if required <p>Students should demonstrate content covered in all bullet points where applicable to be awarded pass.</p>
Distinction	<p>A distinction grade student can:</p> <ul style="list-style-type: none"> ● carry out a range of dental procedures to support dental professionals at chairside by demonstrating exceptional knowledge and skills of: <ul style="list-style-type: none"> ○ current legislation regulations to maintain a safe working environment and the purpose of regular training and enhanced continuing professional development ECPD ○ infection control in relation to HTM 01-07 and hand hygiene including social, clinical and aseptic ○ instruments and equipment used in a dental surgery, including correct storage in relation to HTM 01-05 and the purpose of audits ○ anatomy and physiology ○ dental treatments and their respective referral process, if necessary ○ duty of care to patients in relation to GDC scope of practice, GDPR, Equality Act 2010 and safeguarding ● provide factual information and up-to-date advice to help patients to maintain and improve their oral health by demonstrating exceptional knowledge and skills of: <ul style="list-style-type: none"> ○ oral disease causes and preventions ● provide patients with: <ul style="list-style-type: none"> ○ basic diet advice ○ demonstration of the correct techniques for toothbrushing and interdental aids ○ potential health risks ○ local health initiatives that will help to maintain and improve oral health (for example, smoking cessation services) ○ the role of dental professionals and the healthcare team in respect of patient management, including patients who have determinants of health inequalities in the UK and internationally that support oral health planning and improvement ● accurately record patients' dental information to contribute to their treatment and dental care on dental charts, using technology where appropriate, by demonstrating exceptional knowledge and skills of: <ul style="list-style-type: none"> ○ principles of dental charting, and soft tissue assessment including: <ul style="list-style-type: none"> ▪ FDI ▪ Palmer notation ▪ BPE ▪ periodontal charting ▪ use of information technology and electronic systems within a dental setting

- effective and contemporaneous note-taking
- good use of time management
- prepare, mix and handle filling and impression material in an appropriate and timely way by demonstrating exceptional knowledge and skills of:
 - filling and impression materials
 - ensuring there is ventilation
 - adjusting room temperature accordingly
 - adjusting the lighting accordingly
 - mixing equal amounts of materials if required
 - communicating with the dentist as well as observing their actions to determine when to prepare materials

Students should demonstrate content covered in all bullet points where applicable to be awarded a distinction.

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Change History Record

Version	Description of change	Approval	Date of Issue
v1.0	Post approval, updated for publication.		April 2023