CHAPTER 1

Special care dental nursing

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SECTION I Questions: Disability awareness

LEARNING OUTCOMES

At the end of this section, you should be able to identify any gaps in knowledge associated with the following:

- Impairment and disability
- Related legislation and guidelines – consent
- Barriers to access

Impairment and disability

1. Define the term 'Impairment'.

2. Define the term ‘Disability’.

3. Disability can be listed under four main classifications. What are these?

4. Give an example of an impairment for each of the four classifications of disability.

5. What is meant by the Social Model of Disability?

6. What is meant by the Medical Model of Disability?

Related legislation and guidelines – consent

1. State three key legislative Acts which help inform the delivery of Special Care Dentistry.

2. In 2011, the ‘Public Sector Equality Duty’ became part of the Equality Act. State one action the amendment required that public organisations need to take.

3. State three ‘dentally related’ documents which help inform delivery of oral health care for people with disabilities.

4. In relation to Health and Social Care, a new Act was introduced in 2012 – what was it called?

5. When determining a new way of working or a new policy in healthcare provision, what is an EIA?

6. From date of diagnosis, progressive conditions such as HIV, Cancer and Multiple Sclerosis are covered by which key disability related legislation?

7. In relation to obtaining consent in England and Wales, what do the letters MCA stand for?

8. When did the MCA come into force?

9. In relation to obtaining consent in Scotland, which Act is involved?

10. When did this Act come into force?

11. A person who supports another person (who lacks capacity and has no appropriate family or friends to consult) to make decisions is called an IMCA? What does this stand for?

12. State two types of situation when the services of an IMCA may be necessary.

13. Another form of advocacy support is via an IMHA – what do these letters stand for?

14. To protect a vulnerable person from harm, DoLS may be implemented – what is this?

15. State three ways in which the ’principles’ of informed consent can be implemented.

Barriers to access

1. State two ways patient general anxiety may be triggered/increased in the dental waiting room.

2. State three 'physical' environmental barriers to access dental care.

3. State three 'organisational' barriers to access dental care.

4. State three 'social' barriers to access dental care.

5. State two 'cultural' barriers to access dental care.

6. State three 'medical' barriers in relation to patient care and management.

7. State three 'communication' barriers in relation to patient care and management.

SECTION II Questions: Facilitating access

LEARNING OUTCOMES

At the end of this section, you should be able to identify any gaps in knowledge associated with the following:

- Providing special care dentistry
- Reasonable adjustments
- Oral health screening

Providing special care dentistry

1. What is Special Care Dentistry?

2. Describe three 'community' providers of Special Care Dentistry.

3. State three dental specialties that may be found in the Hospital setting.

4. Describe the purpose of a mobile dental unit.

5. State four ways that provision of a dental service in a mobile dental unit may differ from working in a fixed clinic?

Reasonable adjustments

1. Describe four examples of environmental 'reasonable adjustments' for gaining access to the dental clinical setting.

2. Describe four examples of environmental 'reasonable adjustments' upon entering the dental clinical setting.

3. State three considerations in relation to seating arrangements in the waiting room.

4. Give an example of a 'reasonable adjustment' in relation to information provision.

5. How can a patient who needs help to complete their medical history be supported?

6. Give an example of 'inclusive' language to replace the statement 'disabled toilet'.

7. 'Disability etiquette' is important. Give an example of steps to take when meeting a person who is a wheelchair user.

8. Give an example of considerations to take when meeting a person who requires help with navigation.

Oral health screening

1. Oral health screenings are carried out by Community Dental Services. What is the correct name for this work?

2. Give two advantages of carrying out oral health screenings.

3. Give three disadvantages of carrying out oral health screenings.

4. State five considerations during the initial planning of an oral health screening.

5. State three considerations required on arriving at the venue on day of oral health screening.

6. State six items required for carrying out an oral health screening.

7. State three considerations required for after an oral health screening has been carried out.

SECTION III Questions: Communication

LEARNING OUTCOMES

At the end of this section, you should be able to identify any gaps in knowledge associated with:

- Pre-visit information – supporting patient and carer
- Sensory impairment
- Alternative communication

Pre-visit information – supporting patient and carer

1. When scheduling an initial dental visit, state at least three considerations to be made.
2. State two pieces of information a Dental Nurse could provide to the patient/carer prior to attending the dental clinic.
3. State two pieces of information a Dental Nurse could provide to the patient/carer prior to attending for actual dental treatment.
4. 'Personal preference' information helps in determining successful outcomes for patients – give four examples of what this could include.
5. What communication and interpersonal skills are required to enhance support for individuals with diverse needs?
6. State two health-related conditions that may impair communication.
7. What are the four modalities of language?
8. What does the term Dysarthria mean?
9. What is an inability to understand spoken or written work known as?
10. State three 'environmental' barriers to effective communication in the clinical setting.

Sensory impairment

1. What is meant by the term sight loss?
2. Partial sight is categorised by different levels – what are they?
3. Define the term blindness.
4. What are the leading causes of sight loss?
5. What are the leading causes of blindness?
6. Define visual impairment.
7. What is meant by visual acuity?
8. Myopia is the clinical term for which eye condition?
9. What is the role of an Optometrist?
10. What is the role of an Ophthalmologist?

11. What is the role of an Orthoptist?

12. How can hearing impairment occur?

13. What is tinnitus?

14. State three ways in which effective communication for people with hearing impairment may be facilitated.

15. What is a hearing loop system?

16. What is a Cochlear implant?

17. State three ways in which effective communication for someone with visual impairment may be facilitated.

18. State three ways information may be effectively provided for someone with visual impairment.

19. State three ways effective communication for people with a cognitive disability may be facilitated.

20. When providing information for a person with Learning Disability – what is meant by the term ‘sequencing’?

21. State three ways in which effective communication for people with speech impairment may be facilitated.

22. State three ways in which effective communication for people with mobility impairment may be facilitated.

23. A person with Autism may have several ‘sensory’ challenges – name four.

Alternative communication

1. BSL is a communication method used predominately by members of the Deaf community – what is it?

2. Lip reading is what type of communication?

3. The Total Communication approach uses a combination of communication methods – state five methods that may be included.

4. What is Makaton?

5. Give the name of two commonly used picture symbol sets.

6. What is Braille?

7. What is Moon?

8. What is the deaf-blind manual alphabet?

9. How does the 'block alphabet' differ from the deaf-blind manual alphabet?

10. Name two non-verbal methods of communication that are based purely on physical movement.

11. State an alternative method for verbal communication to occur via use of technology.

12. What is a picture board?

13. When could an Alternative and Augmentative Communication (AAC) system be used?

14. State one way in which an Alternative and Augmentative Communication (AAC) system may be operated.

15. How can telecommunications items be adapted to support effective communication?

16. Interpreters can be employed to assist with communication – name two types of interpreters.

17. Describe the three common steps used during the teaching of a new skill.

18. What is the purpose of a palatal lift (training) device?

SECTION IV Questions: Diversity of need

LEARNING OUTCOMES

At the end of this section, you should be able to identify any gaps in knowledge associated with provision of dental care for patients of all ages who may have:

- Medically compromising conditions
- Cancer and palliative care
- Learning and physical disabilities

Medically compromising conditions

1. What is the difference between a sign and a symptom?

2. In relation to 'cardiac' complications, what is a VSD?

3. What is meant by the term cardiovascular disease (CVD)?

4. Mention two types of CVD.

5. In relation to CVD, there are two main reasons for a 'reduced' blood flow – what are they?

6. In relation to respiratory complications, what do the letters COPD stand for?

7. When trying to ascertain how far a patient may be able to lie back in dental chair, what useful, simple questions may be asked?

8. What is Asthma?

9. Application of topical fluoride varnish is contraindicated in some patients with Asthma – state the exclusion criteria.

10. What is a tracheotomy (or tracheostomy)?

11. What is Anaemia?

12. State three common orofacial signs/symptoms of Anaemia.

13. Define what is meant by a 'bleeding disorder'.

14. What is Haemophilia?

15. Factor VIII is used in the treatment of which coagulation disorder?

16. What is Christmas disease?

17. What intraoral signs may be seen in relation to von Willebrand's disease?

18. What do the letters INR stand for?

19. Which is the commonly prescribed drug monitored by carrying out INR checks?

20. Diabetes can occur in all ages – what are the two main types?

21. Give the name of a drug commonly prescribed in relation to Diabetes controlled by diet.

22. What is Liver Cirrhosis?

23. How may Liver Cirrhosis be caused?

24. State an oral presentation affecting 'hard' dental tissue that may present in a patient with Liver Cirrhosis.

25. State an oral presentation affecting 'soft' oral tissue that may present in a patient with Liver Cirrhosis.

26. What is Hepatitis?

27. Hepatitis viruses are referred to as 'types' – state two of the five main ones.

28. Which types of Hepatitis are of particular interest in the dental setting?

29. For which Hepatitis a vaccination can be given as part of 'Personal Protective Equipment'?

30. What do the letters HIV stand for?

31. State three oral lesions/conditions strongly associated with HIV infection.

32. Advanced stage HIV may progress to AIDS – what do these letters AIDS stand for?

33. The CD4 count for a person with AIDS is likely to be below which level?

34. Define the term Kidney Disease.

35. How does End Stage Renal Disease (ERSD) differ from chronic Kidney Disease?

36. What is the difference between Peritoneal Dialysis and Haemodialysis?

37. Define the term Gastrointestinal Disease.

38. What is Crohn's Disease?

39. State two orofacial signs of Crohn's Disease.

40. What do the letters GERD (or GORD) stand for?

41. What is Rheumatoid Arthritis?

42. How can Rheumatoid Arthritis impact on oral health?

43. What is Sjogren's Syndrome?

44. How can Sjogren's Syndrome impact on oral health?

45. What is Scleroderma?

46. How can Scleroderma affect oral care?

47. What is meant by Neurodisability?

48. State three types of difficulty that may occur due to Neurodisability.

49. Give an example of a 'progressive' neurological disease.

50. State two reasons why acquired brain injury may occur.

51. What is the correct term to describe a 'lack of oxygen' to the brain or other tissues?

52. Give an example of a neurological 'acquired' disability.

53. What is the correct medical term for a Stroke and why may a Stroke occur?

54. In relation to the risk of Stroke – what is a TIA?

55. What is Dementia?

56. State two types of Dementia.

57. What is Multiple Sclerosis?

58. Multiple Sclerosis may present in three different stages – what are these?

59. Epilepsy is a symptom of an underlying neurological disorder – what is a seizure?

60. What sort of physical presentations may precede a seizure?

61. What does the term 'absence' mean in relation to seizures?

62. Describe what may be seen in relation to Tonic and Clonic seizures.

63. What is the name of the condition involving a neural tube defect of the spinal cord at birth?

64. What is Huntington's Disease?

65. What is Cystic Fibrosis?

Cancer and palliative care

1. Define Chemotherapy.

2. Define Radiotherapy.

3. In relation to treatment of cancer, what is Oral Mucositis?

4. State two signs/symptoms of Oral Mucositis.

5. What is trismus?

6. Define the terms benign and malignant.

7. Define the term lesion.

8. Define the term histopathology.

9. Define the term sedative filling.

10. What does the term therapeutic mean?

11. What does the term palliative care mean?

12. Pain control can also be influenced by use of an appropriate bed and bedding – state two types of mattress that may enhance patient comfort.

13. A palliative care team could include a variety of members from the multidisciplinary team – state two disciplines that may be included.

Learning and physical disabilities

1. What is meant by 'Learning Disability, Learning Difficulty and Intellectual Disability' within adult Health and Social Care.

2. Define 'Learning Difficulty' within education services.

3. In UK education services, what do the letters SEN stand for?

4. What type of need/s may a person with Profound and Multiple Learning Disability (PMLD) have?

5. What do the letters 'IQ' stand for?

6. What is Dyslexia?

7. What is Fragile X Syndrome?

8. What is Duchenne Muscular Dystrophy?

9. What is Down's Syndrome and how does it occur?

10. State five physical features that may present in a patient with Down's Syndrome.

11. When treating a patient with Down's Syndrome, care must be taken with positioning in relation to neck region – why?

12. Drinking alcohol during pregnancy may result in the baby being born with which syndrome?

13. Autism is a lifelong developmental disability. When does it tend to appear?

14. Which 'umbrella term' covers the range of disorders that includes Autism?

15. In relation to Autistic Spectrum Disorder (ASD) – what is the 'Triad of Impairment'?

16. What is Asperger's Syndrome?

17. What does ADHD stand for?

18. Name a bone disorder commonly found in older women.

19. What is Paget's Disease?

20. What is Scoliosis?

21. Spinal Cord Injury may result in Monoplegia, Paraplegia or Quadriplegia – how do they differ from each other?

22. In what other ways can Spinal Cord Injury affect the limbs and the body?

23. What does the term 'gait' relate to?

24. Give an example of 'fine' and 'gross' motor movements.

25. Which part of the brain controls balance and muscle tone?

26. What is Dyskinesia?

27. What is Dyspraxia or Apraxia?

28. What is the difference between Hypertonia and Hypotonia?

29. Describe the term Dystonia.

30. What is the name of the toxin used to treat patients who have Dystonia?

31. Define Cerebral Palsy.

32. What are the main causes of Cerebral Palsy?

33. State two factors that may increase the risk of Cerebral Palsy.

34. State two main types of Cerebral Palsy.

35. What common orofacial presentations may be seen in Cerebral Palsy?

SECTION V Questions: Preparing for patient visit

LEARNING OUTCOMES

At the end of this section, you should be able to identify any gaps in knowledge associated with caring for patients in clinical and domiciliary settings:

- Patient assessment
- Organising patient transport
- Domiciliary care

Patient assessment

1. The term 'vulnerable/disadvantaged' groups commonly refer to which key 'age' groups?
2. The term 'vulnerable/disadvantaged' groups include which 'income-related' groups?
3. The term 'vulnerable/disadvantaged' groups may include groups who experience 'discrimination or other social disadvantage' – State three examples.
4. What sort of 'population areas' could the term 'vulnerable/disadvantaged' be applied to?
5. What key information needs to be collated prior to the patient attending for treatment? State four considerations.
6. State three considerations to be taken when caring specifically for people who are wheelchair users.
7. Give three ways how the dental nurse can ensure that an appropriate 'treatment setting' is available for patient.
8. State three patient criteria likely to be included in a Special Care 'case mix' model.
9. State five steps that can be taken to help reduce the risk of medical emergencies.
10. What does the abbreviation ASA stand for?
11. What is the name of an assessment scale commonly used to measure dental anxiety?
12. What is meant by the term Dysphagia?
13. What are the factors involved in Dysphagia?
14. State three signs or symptoms of Dysphagia.
15. What is the main purpose of carrying out a 'videofluoroscopy'?
16. Why are IV bisphosphonates of interest to the dental team?

Organising patient transport

1. State three considerations around 'patient assistance' that can help inform arrangement of patient transport.
2. State two considerations around 'patient treatment' that can help inform arrangement of patient transport.
3. State two factors that may influence the type of transport organised.
4. State two factors to take into account if the patient requires ambulance transport.

5. State two considerations around 'patient treatment' that can help inform arrangement of transport to take the patient home.

6. State some ways to minimise the risk of difficulties with 'organised' transport.

Domiciliary care

1. State two types of patients who may require domiciliary dental care.

2. Give two 'pros' for carrying out domiciliary dental care.

3. Give two 'cons' for carrying out domiciliary dental care.

4. Risk assessments are required for provision of domiciliary dental care – state five topic areas that these could/should cover.

5. State four planning considerations required for a domiciliary visit in relation to safety of **dental team**.

6. State four planning considerations required for a domiciliary visit in relation to **patient safety**.

7. On arrival at venue, what measures can be implemented to support delivery of safe and effective dental care?

8. State two types of treatment that may be carried out in the domiciliary setting.

9. State two ways **how** treatment may be modified especially if working in the 'non-clinical' setting.

10. Give three reasons **why** treatment may need to be modified especially if working in the 'non-clinical' setting.

11. When working on a domiciliary basis, list ten items that may be found in the 'dental treatment kit'.

12. When working on a domiciliary basis, list five items that may be found in the 'administration kit'.

SECTION VI Questions: Patient care during treatment

LEARNING OUTCOMES

At the end of this section, you should be able to identify any gaps in knowledge associated with the care of patients with diverse needs during treatment:

- Role of the dental nurse
- Ongoing risk assessment
- Treatment modification

Role of the dental nurse

1. State two ways in which a patient with diverse needs may be supported during treatment.
2. What are the main four ways in which the dental nurse can provide support for a patient?
3. How can dental team ensure that patient is kept as fully informed as possible throughout treatment?
4. For a patient with dental phobia, state two ′management′ techniques that could be used.
5. Suggest three ways in which a patient with Autism may be supported during dental treatment.
6. Describe what is meant by a ′physical′ intervention.
7. State three ways of supporting patients with an extreme gag reflex to cope with treatment.
8. State two reasons how oral function and/or structure may prevent access to the mouth.
9. What is the correct term for a very small lower jaw?
10. What is the correct term for a very large tongue?
11. In what ways a very large tongue can impact on delivery of dental treatment?
12. What is a ‘frenum’?
13. How can a ‘frenum’ or ‘frena’ impact on delivery of oral care?
14. What is Ankyloglossia?
15. State one way in which safe access to the oral cavity during treatment may be achieved.
16. State how the Dental Nurse can provide ongoing support for patients during treatment.

Ongoing risk assessment

1. State three key areas of training very pertinent to Special Care Dentistry.
2. State three factors in relation to the safe moving and handling of a patient.
3. What is the purpose of a ‘wheelchair platform’?
4. What additional factor needs to be considered if a patient has no sensation in his or her legs?
5. Describe two items that may be used to assist a patient to ′transfer′ to the dental chair.

6. The letters FAST assist as a 'check list' for early recognition of a Stroke – what do the letters stand for?

7. How can the risk of medical emergencies be reduced?

8. Some medical conditions can be aggravated by stress. – Give one example.

9. Some conditions can affect patient ability to co-operate. Give one example

10. State one long-term condition that can impact on actual dental treatment.

11. When providing dental care for people with Special Care Needs, what medical/health barriers may need to be considered? State two examples.

Treatment modification

1. Give three reasons why treatment may need to be modified.

2. State two ways in which the delivery 'timeframe' for treatment can be modified.

3. State three ways in which the delivery of treatment can be modified.

SECTION VII Questions: Pain and anxiety management

LEARNING OUTCOMES

At the end of this section, you should be able to identify any gaps in knowledge associated with the identification of pain in people, particularly those with cognitive impairment:

- Different types of pain
- Non-pharmacological pain and behavioural management
- Mental health

Different types of pain

1. In relation to dental pain, what signs may be noted in people who are unable to verbally express their need?

2. People with Special Care Needs will experience dental pain both on an acute and chronic basis. State two reasons for dental pain.

3. What is the difference between the clenching of the teeth and bruxism?

4. What does the term 'extra-oral' mean?

5. Describe the term ‘mucous membrane’.

6. Mention two different types of pain.

7. What is Acupuncture?

8. What is Acupressure?

9. Thinking about unpredictable patient responses, what is the term for an exaggerated response to pain?

10. What is Allodynia?

Non-pharmacological pain and behavioural management

1. What is meant by the term ‘non-pharmacological’ interventions?

2. What factors need to be taken into account in relation to a non-pharmacologic approach?

3. What is meant by the term ‘behavioural management’?

4. Give an example of behavioural management technique.

5. What is a papoose board used for?

6. Distraction may be used to support pain management. How is the technique thought to work?

7. Providing information for a patient may help to alleviate their stress. What factors need considering prior to offering this?

8. A patient may have his or her own techniques for controlling pain. What might these be?

9. Application of either heat or cold can help with pain relief. Describe how both may work.

10. Appropriate ’patient positioning’ contributes to both pain relief and comfort. How can this be achieved?

11. Young children can be supported by using the ’knee to knee’ approach. What is this?

12. What is Cognitive Behavioural Therapy?

13. What do the letters NLP stand for?

14. State four simple steps that can be taken to help acclimatise a person with Special Care Needs to the dental clinical environment.

Mental health

1. Define the term 'Mental Health Impairment'.
2. What are Affective Disorders?
3. How may a patient with 'depression' present in the dental setting?
4. What is Manic Depression also known as?
5. Sometimes a person may hear voices or have periods where they see things that other people may not. What is the name of this disorder?
6. How may Mental Health and related treatments affect oral health and dental care?
7. If a patient had a personality disorder, how may this affect his or her behaviour?
8. What sort of feelings a person who self-harms may have?
9. What is Agoraphobia?
10. What is a Phobia?
11. A patient who is anxious may have several physical symptoms. State two of them.
12. What signs and symptoms may be seen during a panic attack?
13. What is meant by the term 'Neurosis'?
14. Obsessive Compulsive Disorder has two main parts – what are they?
15. What is the name of the appetite disorder that involves compulsive eating?
16. What is Pica?
17. Name two commonly known Eating Disorders.
18. Orthorexia is classed as a similar condition to an Eating Disorder. What does it mean?
19. What is the S.C.O.F.F questionnaire?
20. What is the layer of fine body hair that can develop on a person with an Eating Disorder called?
21. State three physical signs that a dental professional may notice in a person with an Eating Disorder.

22. State some orofacial signs of Recreational Drug use.

23. State some other ways in which alcohol abuse may impact on health.

SECTION VIII Questions: Promoting good oral health

LEARNING OUTCOMES

At the end of this section, you should be able to identify any gaps in knowledge associated with early development and shared care with the wider interdisciplinary team:

- Whole life spectrum
- Interdisciplinary and multi-agency working
- Facilitating good oral health

Whole life spectrum

1. What are the age ranges in relation to the terms Infant, Child and Adolescent?

2. The ‘perinatal’ period covers which time period?

3. What does the term ‘congenital’ mean?

4. What is meant by the term ‘birth defect’?

5. State one type of defect that comes under the classification of ‘birth defect’?

6. Define the term cleft palate.

7. What is an ‘acquired’ disability?

8. Give an example of a ‘physical’ acquired disability.

9. What is the age range for a ‘developmental disability’ to occur?

10. What is meant by the term ‘developmental delay’?

11. State two domains (types) of developmental delay that may be found in children.

12. What is meant by the term ‘global’ developmental delay?

13. State three reasons why ‘developmental disability’ may occur.

14. What is ‘intellectual’ disability?

15. In relation to the ageing process, what terms may help indicate the potential level of support that may be needed?

16. What term is used to describe dental care provision specifically for children?

17. What term is used to describe dental care specifically provided towards an 'older' population group?

18. During growth and development of facial structures, an orthognathic opinion may be required – what would this assessment primarily involve?

19. What is meant by the term 'prosthesis'?

20. What is an obturator?

Interdisciplinary and multi-agency working

1. In relation to holistic care, what is meant by the letters 'MDT'?

2. Delivering Better Oral Health, 3rd edition, contains a letter template for a GDP to communicate with a GMP – what is the purpose of the template?

3. Health Care colleagues work in many different patient care areas. Which care areas are identified by the letters SALT, CPN and OT ?

4. State the name of the main nutritional screening tool used in care settings.

5. What is the difference between Enteral and Parenteral Nutrition?

6. State three methods of Enteral Nutrition.

7. A patient is receiving Bobath therapy – what is it?

8. A patient requires an orthotic assessment – what is it?

9. What is the purpose of an orthosis and give one example.

Facilitating good oral health

1. When providing oral health information for a person with Special Care Needs to carry out at home, give three examples of appropriate information.

2. When providing oral health information for a person with Special Care Needs about preventive dental care in the clinic, give an example of appropriate information.

3. Discuss how a carer may be supported to provide safe and effective oral care.

4. How can 'dry' tooth brushing support delivery of effective oral care in patients with diverse health needs?

5. How can oral hygiene items be adapted for a person who has limited manual dexterity?

6. State four factors to be taken into account when discussing a new toothbrush for a person with Special Care Needs.

7. Thinking about types of toothpaste for patients with Special Care Needs, state three factors that may help encourage use.

8. When advising a carer on delivery of oral care, state four considerations that need to be made in relation to both patient/carer.

9. When working with carers, what other points should be advised prior to carrying out oral care for another person?

10. What sort of 'visual aid' may assist a carer to carry out effective oral care for patients on a more personalised basis?

11. Discuss additional advice that could be included in relation to wearing of dentures.

12. Family members may request new dentures to be provided for their loved one. State two aspects that need to be considered in such discussions.

13. When supplementary nutrition (high-calorie drinks) is required, what advice can be given to reduce the risk of dental caries?

14. In relation to dietary choices, state two other 'external' factors that may influence intake.

15. What 'anticipatory' guidance could be given in relation to the risk of trauma to teeth?

SECTION I Answers: Disability awareness

Impairment and disability

1. 'Impairment' – a loss or abnormality of structure or function including psychological function.

2. 'Disability' – a physical or mental impairment that has a 'substantial' and 'long-term' negative effect on a person's ability to do normal daily activities.

3. Four main classifications of disability – Mental, Sensory, Physical, Cognitive.

4. **Mental** disability – mood swings/depression; unable to socialise/interact with people; emotional distress. **Sensory** disability – decreased hearing, poor vision, speech impairment. **Physical** disability – poor/no mobility, poor co-ordination, respiratory stress. **Cognitive** disability – reduced learning ability, unable to pay attention or concentrate, poor memory/recall ability.

5. Social Model of disability is caused by the way society 'operates' rather than by a person's actual impairment or difference. This model explores how restrictions and barriers can be removed to enable the person to have an independent life through more control and choice (more inclusive ways of living).

6. Medical Model of disability – the person is disabled due to their impairment or difference. Emphasis is more on what is 'wrong' with a person and that it is their impairment or additional need that should be 'treated' rather than identifying changes which could be put in place to support the person more effectively. Reinforces low expectation and aspiration leading to people losing independence and restriction of choice.

Related legislation and guidelines – consent

1. Mental Health Act (1983), Disability Discrimination Act (1995), Disability Equality Duty (2006), Human Rights Act (1998), Mental Capacity Act (2005), Principles of Mental Capacity Act (2007), Deprivation of Liberty Safeguards (DOLS), Equality Act (2010), Health and Social Care Act (2012), Care Act (2014).

2. Eliminate discrimination of people who are disabled. Be proactive in equality of opportunity. Foster good relations between people who are disabled and those who have no disability.

3. NICE Guideline 19 Dental Recall (2004).
   Choosing better oral health: An oral health plan for England (Department of Health 2005). Meeting the challenges of oral Health for Older People: A Strategic Review (commissioned and funded by Department of Health 2005). Guidelines for the Development of Local Standards of Oral Health Care for People with Dementia (funded by Department of Health 2006). Valuing people's oral health: A good practice guide for improving oral health of children and adults with disabilities (British Association for the Study of Community Dentistry, British Society of Disability and Oral Health, British Society of Paediatric Dentistry 2007). Guidelines for the Oral Healthcare of Stroke Survivors (British Society Gerodontology 2010). Clinical Guidelines and Integrated Care Pathways for the Oral Health Care of People with Learning Disabilities (Princess Diana Memorial Fund, British Society of Disability and Oral Health, Royal College Surgeons 2012).
   Delivering Better Oral Health: An evidence-based toolkit for prevention, 3rd edition (Public Health England June 2014).

4. Health and Social Care Act 2012

5. Equality Impact Assessment – one tool for examining main functions and policies of an organisation (whether potential exists for people to be affected differently). Purpose is to identify and address any existing or potential inequalities.

6. Equality Act 2010

7. Mental Capacity Act

8. MCA – statutory requirement in 2007. This law applies to everyone involved in care, treatment and support of people older than the age of 16 years in England and Wales who lack capacity to make all or some decisions for themselves.

9. Adult with Incapacity (Scotland) Act

10. 2000

11. Independent Mental Capacity Advocate

12. Independent Mental Capacity Advocacy may be called upon when serious medical treatment is being provided, withdrawn or stopped (unless in an emergency situation and referral may still be required afterwards);for a hospital stay of more than 28 days; during care reviews or adult protection proceedings and if the NHS or local authority propose changes to accommodation arrangements leading to a stay of more than eight weeks in a care home.

13. Independent Mental Health Advocate – introduced in 2009 – legal duty to provide Independent Mental Health Advocacy to patients who qualify under the Mental Health Act 1983.

14. Deprivation of Liberty Safeguards

15. Always work within legal, societal and ethical frameworks. Use of Mental Capacity Act. Work with other agencies/family members towards patient 'best interests'. Share information as necessary (especially regarding safeguarding concerns). Work confidentially and be aware of situations when confidentiality may be broken. Use of a translator if English is not the first language or other alternative communication tool. Record all interventions.

Barriers to access

1. Patient anxiety may be increased via unfriendly attitude of reception team. Patient can hear items of equipment being used (especially the dental handpiece) or due to the 'clinical' smell from some of the dental materials. Dental team is running late so appointment is delayed (this could also lead to additional stress for the patient particularly if they have another appointment to get to after their dental visit).

2. 'Environmental' barriers include clinic is too difficult for patients to get to – could be due to lack of transport, that is, the practice is not on a bus route or patient is non-driver. Also due to health needs, patient may not be able to travel for too long or for too far (risk of pressure sores or anxiety level will be increased too much). Clinic building may have steps up to the front door or, once in the building, there is no ground floor clinic. Actual dental surgery is too small to accommodate people who are wheelchair users (may be carer/s too).

3. 'Organisational barriers' – Clinic opening times is too restrictive, for example, not open at weekends (this could be particularly difficult if the patient and/or carer works during the week).
Certain type of 'patient image' portrayed via practice literature, range of services offered (mainly implants rather than 'family' access), type of posters and magazines in the waiting room. Treatment needs of patients are outside the role of GDP – factors include lack of confidence and experience, not enough appropriate training (or access to training). Skill mix in dental team is restricted or not enough staff. Lack of treatment facilities such as being unable to offer sedation. No funding to cover costs for Special Care facilities. Treatment delivery can be time-consuming and too costly to provide in General Dental Practice.

4. 'Social' barriers include poverty – poor lifestyle choices leading to higher dental disease risk (use of tobacco products, convenience foods). Financial – patients are unable to afford cost of treatment. Cost of taking time off from work resulting in loss of income (This can apply

to carer also). Lack of knowledge regarding health cost exemption criteria – unable to access forms (as many online) or if have the form, unable to complete (poor vision, low literacy).

5. 'Cultural barriers' – Dental team attitude – lack of understanding, lack of empathy towards patient/caregiver needs. Patients may have low health literacy and lack knowledge on how to access services and their eligibility for care. Dental care has a low priority due to own cultural background and influence of primary socialisation. Parent/carer has a lack of knowledge about dental disease and this can be more difficult if 'shared care' is in place as this is likely to be inter-generational so will be an even wider difference in attitude. Dental team may not understand requirements for certain religious practices (for example dental treatment during Ramadan may be too risky for some patients because if any water is swallowed then their period of 'fasting' will be broken).

6. Medical barriers – actual consideration in relation to complexity of medical history, for example, bleeding disorders, poly-pharmacy and timing of medications. Risks can be higher if a patient newly diagnosed (so condition may be 'unstable') also if the patient has challenging behaviour as can be very unpredictable. Difficulties can result from involuntary movements (tremors) and level of frailty (can patient cope both during and after dental treatment?). Mobility impairment may require patients to be treated in their wheelchair – can lead to difficulty in being able to adopt best practice 'posture' for both patient and clinical operator/s. Patient coping skills/mechanism – may have reduced tolerance on the day of treatment. Health needs necessitate dependency on Care givers – applicable to both young and old patients.

7. Communication barriers – Dental phobia – time and skills needed to support anxiety management. Difficulty between patients and clinicians leading to inability to understand treatment options or requirements; patients unable to consent because English not first language or because of medical challenge (dementia). Visual and/or hearing impairment.

SECTION II Answers: Facilitating access

Providing special care dentistry

1. Special Care Dentistry provides preventive and treatment oral care services for people who are unable to accept routine dental care because of physical, intellectual, medical, emotional, sensory, mental or social impairment or a combination of these factors.

2. **General Dental Practice** – depending on the patient treatment needs and Practitioner skills/equipment, care may be shared between GDP and Community Dental Service (CDS)/Special Care Service. This could include patients having treatment with Special Care Service and return to their GDP for their dental examinations. **Community Dental Service (Special Care Dental Care Services)** – usually have fully accessible facilities. Several services now have 'wheelchair platforms' so that patients do not need to transfer from their wheelchair to the dental chair. Some may also have specialist dental chairs in situ so that care and treatment for bariatric patients (up to 70 stone) can be provided safely. Much treatment is also carried out under Conscious Sedation (RA/IHS IV) as well. **Domiciliary Dental Team** – very important dental care. Mainly routine, minimally invasive dental care carried out in the 'non-clinical' setting subject to the patient's medical/social history. Care may be

delivered in the patient own home, sheltered accommodation, support living arrangements, a residential or nursing care home. There is also the **Prison Dental Service** where the dental clinic will be within the prison environment. The dental team undergoes further training in accordance with the prison induction procedures and related operational policies. Various other dental care services are offered to our very vulnerable groups in society such as people who are homeless. An example of this would be 'Crisis at Christmas'.

3. Hospital – various dental specialities providing care for more complex cases. Relates to Oral Surgery – Maxillofacial – Orthodontics – Restorative (treatment of complex periodontal disease and provision of implants/special prostheses). Head and Neck Cancer treatment (including provision of prostheses such as obturators). Orthognathic Clinics – assessment and surgery. Cleft Lip and Palate Care. Dental treatment under General Anaesthesia is carried out in the hospital setting (for example patients who require multiple tooth extraction or complex surgical extractions, also dental restorative work).

4. These are well-equipped dental surgeries 'on wheels', that is, lorries. They have their own power generators but need to be 'plugged in' somewhere. Can deliver a range of dental care directly 'on site' within a variety of care settings and some 'special schools'. Also used for oral health promotion work, for example, Mouth Cancer Action Month – could offer mouth cancer screening opportunities within a local shopping area. Can create dependency on dental team as treatment is being delivered on doorstep so patients will not be used to attending the clinical environment. If more complex treatment is needed, then they may need several visits to get used to 'true' clinical environment prior to actual treatment delivery.

5. Common to have paper record keeping in place due to lack of access to computerised system. Legible handwriting is very important. Dental notes will then need to be typed up onto IT systems on return to clinic. Limited storage facilities so need good stock control and rotation procedure in place (including carriage of water). Will need to be able to park near enough to a power supply. May have restricted X-ray facilities. Staff 'rest area' can also be limited. Need to factor in travelling time to get to venue and set up and closing down time to clinical working day. Mobile units may have a lift for wheelchair access but access is usually via steps. Clinic floor can become very slippery and dirty very quickly due to the nature of coming in 'straight off the street'. Can be very difficult to keep warm during winter months or to keep cool in the summer.

Reasonable adjustments

1. Environmental reasonable adjustments to gain access to venue include parking bays for people who use wheelchairs or require assistance for getting out of their vehicle (includes patient transport vehicles, which could be in minibus size). Also provision of appropriate space and access for actual emergency vehicles (ambulance and fire service) – due to complexity of patient base, risk for medical emergencies may be increased. There should be a clear pedestrian area within car parks. Doors to building should open automatically – especially important for wheelchair users. A 'meet and greet' service would be even more invaluable.

2. On entering dental clinical setting – Flooring – non-slip, non-shiny and suitable for wheelchair users (no thick pile carpet). Handrails should be provided throughout the building and doors/doorframe.

Colour should contrast with the surrounding area. Ensure that corridors are as clear as possible of any obstacles, for example, avoid having plants in pots. If at low level, a wheelchair user may catch their eyes. All signage to be clear – use of Braille to reinforce signage also. Black on yellow is good or the highlighting of an important button (for example emergency call bell) with a different colour. Visual alarm system, that is, ensure flashing lights for fire – use of screen for 'calling next patient' (could be via a number system to take turns so need to confirm with each patient that they can use a system like this). If required, ensure the patient is approached directly to advise of their turn, that is, not stand and just call out their name.

3. Waiting room seating arrangements – allow room for wheelchairs to fit into the actual seating area (this will facilitate easy access for manoeuvring the wheelchair and help the person to feel included). Chairs need to be varying in height and size (including height of the back of chairs). Some chairs should be able to be moved if necessary. Ensure that some have arm rests – this will provide assistance for a person to be able to get up from the seated position and assist in guiding people who may have visual impairment to be able to orientate themselves and to sit down safely. Also helpful for people who may have co-ordination difficulties or poor balance/postural control. Think about being able to accommodate Guide/Hearing dogs also. All coverings should be able to be cleaned in accordance with infection control measures.

4. 'Reasonable adjustment' and information provision – consider large print, easy to read, audio (taped), various coloured overlays, texting information to patient, use patient phone to photograph/record Oral Hygiene Instruction being carried out with them. Hearing loop facility is available.

5. Completion of medical history support – copy of form available in a different font size/colour paper (if needed). Member of staff to assist as a 'reader' while patients write their responses. Assist recording patient responses (write/type up) exactly as patient reports. Provide variety of pens with different thickness handles and writing nibs (felt tips alongside biros). Dental teams are trained in how to check hearing aids are switched on.

6. 'Toilet for people with disability' or an 'accessible toilet'.

7. 'Disability etiquette' and wheelchair users. When interacting with people with disabilities, etiquette is the same as for any person. It is primarily based on respect and courtesy. Assess the patient's ability to communicate by addressing the patient first rather than their carer. Confirm the patient's 'preferred' communication method – do not assume. Ask persons if they would like some assistance – do not assume that they do require help. Always ask permission to touch or move a person's wheelchair – the wheelchair is included within the area commonly defined as 'personal space'.

8. If a person can walk and requires assistance, always ask how she or he would like assisting, that is, would she or he like to be guided. Do not attempt to lead the individual or take her or his arm; offer to act as a guide by offering your arm at the elbow, keeping your upper arm straight at the top. Allow the person to hold to control her or his own movements and pace of walking. Talk to the person while walking, explain where you are going and of any variations in floor level (slopes or steps) or doors. Think about how you advise the person about things, for example, instead of saying 'Here is the Dentist', it would be better to say 'Mr Smith is in front of you – he is the dentist who will be caring for you today'.

Oral health screening

1. Oral Health screening is known as Epidemiology – Epi – around, Demos – related to people. Specific dental health data collected by 'calibrated' dental teams is used to help inform future funding requirements regarding resources and workforce skill mix. Information helps identify trends in dental disease and where dental services need to be set up.

2. Advantages – ensures that people who cannot express health needs or routinely able to access health care are provided with an opportunity for health screening. Will provide data to support re-direction of services as/if necessary and to secure both amount and type of resources necessary for the target group in the future. Can help focus resources on any target (high-risk) groups. May provide opportunities for much wider inter-agency collaborative working using the common risk factor approach. This could include links with local NHS Stop Smoking teams.

3. Disadvantages – expensive to provide (both in staff costs and time). Unable to see/inspect oral cavity as clearly as would be able to be done in the dental clinic and can increase health inequalities as only people already be known to be at risk are screened. People who do not need dental care (or help with accessing care) will be screened so reduced opportunity for change to be implemented. People may not attend on the day of the screening so true reflection of dental needs of target group may not be achieved. Requirement to have appropriate resources available to provide the treatment after dental need has been identified.

4. Planning considerations – ethics – why/how screening will be carried out. Items required for actual screening activity. Find suitable venue/setting – arrange dates/timings/rotas. Ensure that whole dental team is aware of screening activity – calibration needed? Consent – gain valid consent – offer opportunity for 'opt out' – who will send consent letters out? Who will collate responses? Onward referrals if necessary – to whom and how will this be done/by whom? Collating and presentation of data – who will do this and who needs the data and by when? Storage of data throughout – managing patient confidentiality (anonymised as required).

5. Confirm own details and identity. Follow any venue induction requirements. Check if any fire alarms or similar planned. Go through details of activity (purpose, timings). Assess suitability of delivery area for procedure regarding privacy and confidentiality as far as possible. Collect up-to-date participant name list and check all absentees have already been noted. Consider how to access participants, for example, if school children in various classes, is there a member of school team who can assist with keeping an efficient flow of children. This may also assist with pupil management (and support for any who may have behavioural needs). Consider how to manage any untoward incidents, for example, a participant refuses to open the mouth.

6. Ensure plenty of disposable, latex-free gloves, mouth mirrors, pen torches (additional batteries) or mobile light (upright 'portable' type plus spare bulb – ensure PAT tested), alcohol hand rub. Related paperwork and pens/boards to lean on. Infection control items – consider cleaning of pen torches, disposal of waste, clean and dirty boxes.

7. Time required for collating data. Who needs the data, by when and in what format? How will 'non-participants' be managed – how to facilitate recall opportunities and/or organise alternative screening date? Onward referrals if necessary – how will clinical need be triaged?

SECTION III Answers: Communication

Pre-visit information – supporting patient and carer

1. What is the best time/day of week for patient and carer. Whether there will be a requirement for any 'patient-specific' support before, during and end of visit. Timing of when the patient takes , if any, medications (Diabetes, Warfarin, Parkinson's), so that the regime will not be disrupted too much and the patient is likely to cope with dental intervention more positively. Location of clinic to patient home – are any transport needs. All information and care provided is on a non-judgemental basis in the best interests of patients. All people (with and without disabilities) will have good and not so good days, so it is important to maintain a flexible and adaptable approach.

2. May need transport so provide a list of taxi companies that accommodate wheelchair users. Offer details of bus routes too. Details on how to access the building with the offer of support on arrival should this be required. Advise on procedure for cancellation and/or rescheduling of appointment (may be necessary especially if the patient health needs change). Provide information about who the patient will be seeing and format of the appointment (what will happen, any tests to be done, how long the appointment will be).

3. Confirm how the patient will be accessing the clinic and check whether it will be appropriate. Confirm that the patient's medical and social health needs are unchanged. Provide information about who the patient will be seeing and format of the appointment (what will happen, actual treatment planned, any tests to be done, how long the appointment will be). Whether a chaperone is needed post-operatively and for any period of time thereafter.

4. **Background noise** – keep to a minimum, no radio, interruptions to be kept to a minimum, that is, put appropriate notice on surgery door. **Clutter** – dental work surfaces to be cleared as far as possible so less distractions. **Safety glasses** – is there a preference for wearing darkened glasses rather than clear ones? **Coping mechanisms** – patients may have certain ritual to go through before treatment commences. Use of music/own headphones. **Comforters** – patients may wish to bring own blanket or pillow. **Dental chair** – patients may not like dental chair moving when sitting in it so put chair into best position prior to the patient taking a seat so only need minimal adjustment. **Timekeeping** – Unable to be kept waiting – important not to run late over their 'appointment time'. **Disposable gloves** – preference for non-coloured or a specific coloured clinical gloves. **Meeting people** – people may not wish to see male members of dental team. Keep the number of people in the surgery to a minimum.

5. Listen carefully to what a person has to say – treat with dignity and respect at all times. Be patient, do not try to finish off sentences for the person. If unsure of what to do or say – ask/confirm with the person first and/or carer. Use positive 'non-verbal' body language and behaviour. Be aware and respectful for what may constitute 'personal space'. Negotiate when providing support and joint agreement and setting of SMART objectives. Offer assistance as appropriate and do not be offended if the offer is refused. For greeting a person who wears an artificial upper limb/has limited manual dexterity, it is acceptable to shake hands with the left hand. Use appropriate language taking into consideration both

biological/chronological age and cognitive ability. Networking and ability to work within an inter-disciplinary care team approach towards holistic/ patient centred care (useful to find out what other health-care colleagues do).

6. Communication may be impaired due to cognitive or expressive impairment (Stroke) or learning disability. Anxiety (impact of stress levels as a result of patient trying to accept dental treatment). Hearing loss – congenital or acquired. Visual – will not be able to view pictures/literature – paper/computerised or watch toothbrushing demonstrations on mouth models. Unable to read 'non-verbal' body language.

7. Four modalities of language – Reading, Writing, Comprehension and Expression

8. Dysarthria – imperfect production of sounds used in speech due to lack of muscle control from damage to peripheral nervous system.

9. Aphasia – impaired ability to process information. Primarily with 'expressive' language (how a person speaks). Also can affect 'receptive' language (how person understands). Several types – Global (most severe, minimal recognisable words/unable to read or write). Broca's (better understanding but with limited vocabulary – words such as 'and' or 'the' get missed out). Wernicke's (long sentences with no meaning – can include 'newly created' words). Anomic (understanding is good but short supply of words in relation to topic being talked about – sometimes only occurs when a person is under stress).

10. 'Environmental' barriers – too noisy (radio on in background). Interruptions – other people coming into surgery to get stores and so on. Too much clutter. Poor lighting or light too bright – also difficult when light is placed behind the person. Uncomfortable temperature – room too hot/cold. Strong smells (filling materials). Use of gloves (smells/texture – keep to minimum). Not facing patient when talking – NB eye level is also important – try to maintain at an equal level. Wearing a face mask when speaking may hinder someone who lip-reads or be difficult for those with hearing impairment.

Sensory impairment

1. Broad definition – defined as partial sight or blindness in the better-seeing eye.

2. Broad definition – partial sight is defined as best-corrected visual acuity of <6/12 to 6/60 in the better-seeing eye. It is categorised as Mild – best-corrected visual acuity of <6/12 but better than or equal to 6/18 – or Moderate – best-corrected visual acuity of <6/18 but better than or equal to 6/60.

3. Broad definition – blindness, also called severe sight loss, is defined as best-corrected visual acuity of <6/60 in the better-seeing eye.

4. Sight loss can be due to nerve damage, disease or accidents. Also include uncorrected refractive error, age-related macular degeneration, cataract, glaucoma and diabetic retinopathy.

5. Include age-related macular degeneration, glaucoma, cataract, diabetic retinopathy and uncorrected refractive error.

6. Visual disability that cannot be corrected by the wearing of glasses.

7. Clarity of vision.

8. Myopia is the term used for short sightedness (long sightedness is Hypermetropia).

9. Also known as an optician – a specialist trained to examine the eyes to detect eye problems.

10. Medically qualified doctor who specialises in eye disease, treatment and surgery.

11. Specialises in children's vision and binocular vision problems.

12. Can be congenital, inherited or acquired – as a result of damage to the auditory nerve or cochlea. Could be as a result of Meningitis.

13. Commonly described as 'ringing' in the ears or other noises that can be heard. Can vary in pitch from low to high.

14. Hearing impairment – gain the person's attention by touching gently on their arm. Face the person directly. Think about any light behind you. Remove dental face masks. Confirm whether the person lip-reads too. Speak clearly in short sentences. Do not raise voice unnecessarily. Ensure that any hearing aid worn is switched on. Keep your hands away from your face. If necessary, repeat what you say. Consider using pen and paper. Talk to the person, not sign language interpreter (sign language – there are hundreds of sign languages in use. In linguistic terms, they are as complex as oral language). Find out how to use Text Telephone service (relays calls between you and the individual). Make use of appropriate visual aids.

15. Helps a person to hear the 'source' sound (a person speaking) more clearly by removing or reducing background noise. Hearing aid microphone is turned off while the sound from the loop is received by the hearing aid. It can be used on a portable basis (desktop version).

16. Uses a microphone to pick up sounds that are processed and delivered to surgically implanted electrodes in the inner ear.

17. Visual impairment – confirm the level of visual impairment and preferred communication method. Know correct etiquette when offering 'guiding support'. Be aware that the patient may need reassurance re: clinical noises/smells. Adopt 'hands-on' approach, for example, tactile – gentle positioning of toothbrush in the mouth so that the patient can 'feel' where to place the brush. Reassure the patient if notice 'different' taste in the mouth (bleeding on brushing), this is short-term/will reduce with good oral hygiene. Always let the patient know who is in the room and if anyone leaves. Speak to the patient when you approach them and talk clearly in normal voice. Never touch a 'service/assistance' dog without the owner's permission. Provide 'descriptive' information, that is, when bringing dental light towards the patient's face, advise what you are doing and that they may feel the heat on their face from the light.

18. Information to be available in a different format such as hard copy in large print. Use of a computer screen, which can be adapted re: font size and shape, background colour. Have the document transcribed into Braille. Information can be recorded onto audio tape/CD.

19. Cognitive disability – confirm the level of cognition. Find a quiet place to talk with minimum distraction (no phones ringing, other people talking). Repeat what is being said either orally or by writing. Use simple words and short sentences. Allow time for further discussion especially if decisions are to be made. Provide support notes/photographs for home use. When making appointments, avoid using 24 hours clock – also provide a photograph of the building.

20. 'Sequencing' – enables a procedure to be broken down into small stages. Each stage in the procedure is identified by the use of directional arrows or letters in alphabetical order or numbers.

21. Speech impairment – be sure to listen fully and carefully. Do not be tempted to speak on behalf of the patient – allow the patient to finish her or his sentence. Ensure that you do fully understand what the person is saying – if you don't, do not pretend you do. If acceptable, try using a pen and paper to help clarify. Ask questions that require short or 'closed' answers (such as Yes or No) or that can be easily understood through the shake or nod of the head.

22. Mobility impairment – find appropriate seating so both can be at eye level. Allow time for the patient to get seated (may include a transfer from their wheelchair as/if appropriate) If the patient is wheelchair user, do not lean on wheelchair or move it without permission. Do not pat a person on head or shoulder – neither of these would be actioned if the patient was standing upright. If you need to phone a patient at home, remember to allow time for the phone to be answered.

23. **Sound** (noises can be too loud or 'hurt'). **Spatial awareness** (may have difficulty understanding personal space). **Sight** (difficulty in processing and responding to information being received). **Social situations** (learning the 'unsocial rules' when in new or different social settings). **Depth perception** (judging distance between self and objects). **Body awareness** (difficulty with touch sensitivity and orientation). **Balance and sound** (difficulty in focusing on a task when there are multiple distractions – can create anxiety and confusion).

Alternative communication

1. British Sign Language (BSL) – visual form of communication by using hand signs and facial expression. It has its own 'word order' and grammar.

2. A speech-based communication – often used by people with vision and acquired hearing loss. This is based on lip shapes, gestures and facial movements.

3. Use of symbols, facial expression, body language, photographs, drawings, intonation, technology, objects of reference.

4. Communication method that uses signs, symbols and speech. Its aim is to develop communication, language and literacy.

5. Widgit and Mayer Johnson. Picture symbols used to support language – may be used on own or with text.

6. Raised dots that represent letters and numbers identified by touch used to communicate with people who have visual impairment. Used as digital aid to conversation via some

smartphones, which offer Braille displays and software links when communicating by Skype.

7. Similar to Braille as is dependent on touch. Less commonly used. Letters are represented by 14 raised letters at different angles – easier to learn.

8. This refers to a method of spelling out words onto deaf-blind person's hand. Each letter has a particular sign or place on hand. More straightforward to use than receive.

9. Block alphabet is a simpler and slower method of spelling words on palm of deaf-blind person's hand. Each letter is traced as block capital letter using whole of palm of hand for each letter. Letters are placed on top of each other with a pause at the end of each word.

10. Blinking of the eyes or pointing by eye, changes in breathing pattern, squeezing the hand, more direct and meaningful use of pointing and gesturing. It also includes leading people to objects.

11. Mobile phone, voice recognition computers and voice output device.

12. A picture board is variable in design and serves as a communication tool. Images are selected to support emotional, personal, health and social care needs. Person can point to an image or use letters to spell out key words.

13. AAC system may be used for people who may not be able to communicate using their voice. People will need to have some cognitive awareness.

14. May be operated through the use of 'input systems' such as sip and puff, eye gaze, large buttons or wheelchair-mounted touchscreens.

15. Screen magnification (including change in font style/size and colour), change in colour of the screen background, increased amplification, compatible with hearing aids.

16. British Sign Language – can be via visual frame signing, hands on signing, Sign Supported English (order of words being signed follows spoken English). Deaf-blind manual interpreters. Speech-to-text reporters – listen to what is said and type words on keyboard for relay.

17. (1) Tell, (2) Show and (3) Do

18. Palatal lift (training) device – dental prosthesis designed to improve articulation and pronunciation.

SECTION IV Answers: Diversity of need

Medically compromising conditions

1. Sign is what the dental professional notices. Symptom is what patient is experiencing or 'complaining of', that is, reports to dental professional.

2. Ventricular Septal Defect – defect in ventricular septum, which is the wall dividing the left and right ventricles of the heart. Commonly known as a hole in the heart – present at birth (congenital).

3. General term describing a disease of the heart or blood vessels.

4. Coronary Heart Disease, Peripheral Arterial Disease, Aortic Disease, Stroke.

5. Reduced blood flow may occur due to a blood clot (thrombosis) and build up of fatty deposits inside an artery, which causes the artery to become narrow and hard (atherosclerosis).

6. Chronic Obstructive Pulmonary Disease.

7. Ask the patient how many pillows they use for sleeping.

8. Asthma is a common long-term condition in which the small tubes that carry air in and out of the lungs (bronchi) become inflamed. A patient who has asthma may cough a lot and sound wheezy and also may have chest tightness and breathlessness.

9. People who have been hospitalised for their Asthma.

10. Creation of an opening in the trachea (windpipe) in the front of the neck to assist a patient to breathe. This is carried out as a surgical procedure.

11. Reduction in the oxygen-carrying capacity of blood, resulting in fatigue and decreased resistance to infection.

12. Conditions – such as glossitis – red tongue with loss of papillae (may be the first sign of folate or vitamin B12 deficiency), recurrent bouts of mouth ulcers, candidal infections and angular cheilitis.

13. Condition arises if there is a problem with any part of haemostatic and clotting mechanism. Can be acquired as a result of liver disease, platelet disorders or anticoagulant therapy or congenital.

14. Group of inherited bleeding disorders in which blood does not clot properly. Person may bleed severely from slight injury, surgery or trauma due to reduced clotting ability. Caused by mutation on X chromosome (sex chromosome).

15. Haemophilia A (caused by missing or defective factor VIII, a clotting protein). Normal bleeding time and INR (prothrombin time) but prolonged activated partial thromboplastin time (APTT) and low levels factor VIII. Severity of Haemophilia A is dependent on plasma levels of active Factor VIII.

16. Haemophilia B, a genetic disorder caused by missing or defective factor IX.

17. Purpura of mucous membranes and gingival bleeding (more common than in haemophilia). The disease is caused by poor platelet function and low levels of von Willebrand factor (vWF), ristocetin co-factor (which promotes collagen binding) plus low levels of factor VIII.

18. International Normalisation Ratio. If INR is too high, then blood is too thin – versus the risk of clotting or thrombosis if the INR is too low or blood too thick.

19. INR checks are carried out regularly to monitor Warfarin (Coumarin therapy).

20. Type 1 Insulin Dependent Diabetes (or Juvenile Diabetes/Early Onset) – usually under 40-year age group. The patient will need insulin for life.
Type 2 Non-insulin Dependent Diabetes (NIDD) – may be able to control symptoms by diet only. Type 2 is a progressive condition so the patient may need to take medication.

21. Metformin.

22. Irreversible loss of normal liver tissue due to necrosis and fibrosis.

23. Liver cirrhosis may be caused by excess alcohol consumption and infection by viral hepatitis B/C.

24. Dental Erosion, Dental Caries.

25. Parotid salivary gland enlargement, Ulceration, Angular Cheilitis, Glossitis – in common with poor nutrition.

26. Hepatitis is inflammation of the liver and may progress to cirrhosis or liver cancer. It is commonly caused by hepatitis viruses but also due to other infections, toxic substances (certain drugs/alcohol) and autoimmune disease.

27. Main hepatitis viruses are types A (HAV), B (HBV), C (HCV), D (HDV) and E (HEV).

28. Hepatitis B, C and D via contact with infected body fluids. Hepatitis A and E typically via ingestion of contaminated food or water.

29. Can be protected against Hepatitis B. There is no vaccination for Hepatitis C.

30. Human Immunodeficiency Virus.

31. Candidosis (erythematous, hyperplastic, thrush), Hairy Leukoplakia, HIV–gingivitis, HIV–periodontitis, NUG (necrotising ulcerative gingivitis), Kaposi's Sarcoma. Due to improved drug therapy and drug adherence, some oral signs have now reduced.

32. Acquired Immunodeficiency Syndrome (also known as Late Stage HIV).

33. CD4 count below 200.

34. General term for any damage that reduces kidney function (primarily failure to adequately filter waste products from blood). It is also known as Renal Disease.

35. ERSD occurs due to permanent damage of the kidneys, resulting in the need for dialysis or a kidney transplant in order to live. Chronic Kidney Disease also involves some permanent

damage, but the kidneys will have enough function for the person to stay alive. Further damage may lead to ERSD.

36. Peritoneal dialysis uses lining in abdomen (peritoneum) and special solution to remove waste and extra fluid from blood. Haemodialysis (the most common type of treatment) also cleans waste and extra fluid from blood, but this time it is via a filter on a dialysis machine.

37. Any disease involving the gastrointestinal tract – digestive process begins in mouth and continues through oesophagus, stomach, small and large intestines to rectum. This also includes accessory organs of digestion (liver, gallbladder, pancreas).

38. Chronic inflammatory disease of lining of gastrointestinal tract – also called Inflammatory Bowel Disease. This can affect any part of digestive system, commonly occurs in the last section of the small intestine (Ileum) or large intestine (Colon).

39. Buccal mucosa having cobble stone effect; swelling of labial, gingival and mucosa; angular cheilitis; mouth ulcers and mucosal tags.

40. Gastroesophageal Reflux Disease – reflux of gastric contents due to incompetent lower oesophageal sphincter.

41. A common inflammatory condition affecting the main joints of the body.

42. Patients with Rheumatoid Arthritis may have difficulty and discomfort with chewing (especially if Temporomandibular joint involved) and may have poor oral hygiene due to limited manual dexterity.

43. An autoimmune disease of salivary and tear glands, leading to dryness of mouth and eyes (characterised by sicca syndrome, keratoconjunctivitis sicca).

44. Due to dry mouth, patients can have thick, mucinous saliva, stickier plaque and increased caries risk. Patient can also have difficulty in wearing dentures, swallowing and eating plus increased risk of yeast/fungal infections. Tongue may have cobblestone effect due to loss of papillae.

45. An autoimmune, rheumatic and chronic disease – cells produce additional collagen and continue to make more.

46. Patients have difficulty in opening mouth for daily oral care (toothbrushing and flossing) and for dental care. Patients have dry eye and mouth membranes. Also, hands are likely to be stiff.

47. Neurodisability is a group of long-term conditions (congenital or acquired) leading to limitation of function. It is attributed to impairment of brain and/or neuromuscular system. Conditions may vary, occur alone or in combination. Level of severity and complexity is wide ranging.

48. Difficulties with emotion, behaviour, movement, cognition, hearing/vision, communication.

49. Parkinson's Disease, Multiple Sclerosis, Motor Neurone Disease, Dementia.

50. Trauma, Stroke and Hypoxia.

51. The correct term for lack of oxygen is Hypoxia.

52. Traumatic brain injury (ABI) and Dementia.

53. The correct term for Stroke is Cerebrovascular Accident (CVA). Two main reasons: a blockage in a blood vessel (Ischemic) and a break or bleed in a blood vessel (Haemorrhagic). Both result in the brain being deprived of blood and oxygen leading to death of cells in brain.

54. Transient Ischemic Attack (mini stroke) caused by temporary disruption in the supply of blood to part of the brain. Symptoms can appear and last for about 24 hours before disappearing.

55. Set of symptoms may include deterioration in memory, thinking, behaviour, problem solving or language and social abilities severely enough to interfere with daily activities.

56. Alzheimer's, Vascular, Frontotemporal and Lewy Body.

57. This disorder of brain and spinal cord affects muscle control, vision, balance. This may also cause fatigue. It is an autoimmune disease in which the body's immune system turns on itself and attacks the myelin sheath (which covers nerves), so signals to and from the brain are disrupted.

58. Relapsing remitting – patient has flare ups of symptoms and can then go into remission until next flare up. Secondary progressive – relapsing remitting MS, which progressively worsens. Relapse periods do not allow full recovery from symptoms. Primary progressive – least common, symptoms worsen and no periods of remission.

59. Neurones in brain send one another electrical impulses. During a seizure, impulses become disrupted, affecting how the brain and body reacts.

60. Convulsion, hallucination, mood or behaviour change (for example blinking or slurred speech).

61. Absence means brief period of unresponsiveness (can appear as 'day dreaming' or 'trance like').

62. Tonic – body spasm, head and spine extension. Clonic – repetitive jerking movements and possible bruxism. May also be partial seizures. Simple – motor, sensory or psychic features. Complex – impaired consciousness/automatic repetitive acts. Also Myoclonic and Atonic seizures.

63. Spina Bifida – failure of the neural tube to form fully. For reducing the risk, it is recommended to take 400 micrograms (mcg) Folic Acid every day at least one month before trying for a baby. Babies may also get hydrocephalus (water on the brain); this extra fluid in and around the

brain needs to be monitored carefully to prevent injury to the brain. A shunt may be inserted to help the additional fluid drain away.

64. A condition in which certain brain cells become increasingly damaged over time. This disease is inherited via an autosomal dominant pattern where only one parent needs to carry the mutation. If one parent has mutation, there is 50% chance that it will be passed on to each child the couple has.

65. A genetic condition in which lungs and digestive system become clogged with thick, sticky mucus. This is inherited via autosomal recessive pattern – both parents must have a copy of faulty gene (they are 'carriers' of the condition).

Cancer and palliative care

1. Purpose of chemotherapy is to kill cancer cells. Used to treat disease with chemicals that have a specific toxic effect upon disease-producing microorganisms or that selectively destroy cancerous tissue. Usually used to treat patients with cancer that has spread from the primary site.

2. Treatment of disease with ionising radiation. Used to damage cancer cells and stop them from growing and dividing. Destroys cancer cells in the area that is being treated.

3. Inflammation of mucosal membrane, which increases patient risk of infection. If infected, patients may require antibiotics or anti-fungal treatment.

4. Pain (often described as burning sensation), inflammation and ulceration (sometimes bleeding also present). Lack of saliva can result in both taste disturbance and dysphagia. It can also be severe enough to prevent eating and drinking totally. Speech can also be impaired.

5. Restricted ability to open the mouth. May be due to inflammatory changes or fibrosis of the muscles of mastication.

6. Benign – mild, non-threatening character of an illness or, in the case of a neoplasm, non-malignant. Malignant – having the characteristics of dysplasia, invasion and metastasis.

7. An injury or wound of diseased tissue.

8. Study of disease at cellular level.

9. A temporary restoration intended to relieve pain.

10. Of benefit – goal is the elimination or control of a disease or other abnormal state. Could be therapy or treatment.

11. Aim of palliative care is to make a person as comfortable as possible during the end stage of life. It includes pain relief and management of any other symptoms (dry mouth for example) while also providing psychological, social and spiritual support. Action is not curative.

12. Mattresses may be filled with fluid or air (pressure active mattress). Foam overlays for the mattress (eggbox style) can also be used. Pillows can help prevent deformity and are available in various shapes (V-shaped), sizes and contain variable fillings.

13. Doctors, nurses, social workers, chaplains.

Learning and physical disabilities

1. Significant impairment of intelligence (reduced ability to understand new or complex information and to learn new skills) and social functioning (ability to cope independently), which started before adulthood, with a lasting effect on development. In 2012, estimated 1.14 million people in England had learning disabilities (908,000 adults aged 18 or over).

2. Within education services, 'learning difficulty' includes people with 'specific learning difficulties' for example, dyslexia (but who do not have significant general impairment of intelligence).

3. Special Educational Needs – different codes correspond to the different levels of 'learning difficulty'. People with 'specific' learning difficulties such as dyslexia do not have 'learning disabilities'.

4. PMLD – patients may have more than one disability in relation to sensory/physical/complex health and/or mental health needs along with Profound Learning Disability.

5. Intelligence Quotient – this is a score derived from tests, which assess human intelligence.

6. A specific learning difficulty, not related to intelligence. Classed as a 'hidden' disability and is common. Difficulties with processing and short-term memory. Patients may have poor organisational and planning skills. Conditions associated with learning difficulties or disabilities do not automatically mean that the person will have a learning difficulty or disability (for example Cerebral Palsy).

7. A genetic condition caused by mutation on X chromosome (sex chromosome). People with Fragile X Syndrome may have long face, large ears and flexible joints. They may also have intellectual disability, behavioural and learning challenges.

8. Neuromuscular condition caused by mutation on X chromosome (sex chromosome). Condition that causes increasing and severe disability through the progressive weakening of muscles.

9. Usually 46 chromosomes in each cell (23 from mother and 23 from father). In Down's Syndrome, there is an extra copy of chromosome 21 in all or some of the cells. Extra copy changes how baby's body and brain develop, resulting in mental and physical challenges. Medical term for an additional chromosome is 'trisomy' (hence Down's Syndrome is also known as Trisomy 21).

10. Short neck and small ears. Large tongue often protruding from the mouth. Flat face and bridge of nose, eyes that slant upwards. Poor muscle tone (floppiness very apparent at birth), short in height, small feet. Chubby fingers and single line across palm (palmar crease).

11. May have 'atlantoaxial instability' in cervical region of spine (first cervical vertebra slips forward over the odontoid peg of second vertebra, the axis).

12. Fetal Alcohol Syndrome – linked to developmental delay, learning disability, hyperactivity, poor memory and attention.

13. Infancy – typically within first three years of life.

14. Autistic Spectrum Disorder (ASD) – Group of developmental disabilities associated with varying degrees of social, behavioural and communication challenges.

15. **Impaired communication** – both verbal and non-verbal. People have a very literal understanding of language – need to provide direct clear instruction. Not helpful to say 'You can't stand on the chair' as person with Autism will stand on chair to show they can do it! Better to say 'Do not stand on chair'. **Impaired interaction** – people do not understand 'unwritten rules' around social functioning – not know when to speak or listen. Unable to interpret or 'read' non-verbal body language. **Have restricted interests** so routines and rituals are key 'coping' mechanisms. Prefer set procedures – may need to see same dental team. Self-centred rather than selfish.

16. Neurodevelopmental disorder within ASD. By definition, people may be defined as 'high functioning' due to above average intelligence.

17. Attention Deficit Hyperactivity Disorder – a common neurodevelopmental disorder of childhood (often lasts into adulthood). Have trouble paying attention (fidgety) or taking turns, controlling impulsive actions (make careless mistakes or take unnecessary risks) or be overly active.

18. Osteoporosis.

19. A bone disorder in which the normal repair cycle (osteoclast and osteoblast activity) is disrupted and results in increased bone size with irregular and weakened structure. Common sites are skull, spine, pelvis and femur.

20. An abnormal curvature of the spine usually in an S shape.

21. Monoplegia – impairment of one limb; Paraplegia – impairment of legs only. Quadriplegia – impairment of all four limbs.

22. Hemiplegia – one side of the body affected by paralysis. In addition to motor function, sensations of touch and pain may also be affected.

23. The way an individual walks.

24. Fine – small muscle movements such as those used in writing. Gross (large) – muscle movements such as those used in walking.

25. Cerebellum.

26. Impairment of the power of voluntary muscle, resulting in incomplete movements.

27. Difficulty in carrying out purposeful movements on demand, not related to weakness in muscles. Associated with problems of perception, language and thought and manifests as a motor disorder so may impact on ability to carry out effective oral hygiene regime.

28. Hypertonia is too much muscle tone resulting in stiffness. Hypotonia is too little muscle tone leading to floppiness.

29. Slow, twisting, writhing repetitive movements in arms, legs or body as a result of changes in muscle tone (from stiffness to floppiness).

30. Name of the toxin for patients with Dystonia (excessive muscle activity) is Botulism. There are two types available: A and B. Botulism is rendered safe for use after purification and when administered in small, controlled doses. It is effective in reducing excessive muscle contraction.

31. Cerebral – to do with brain. Palsy – muscle problems or weakness so a disorder of movement and posture due to non-progressive damage or lesion to the immature brain. Most common motor disability in childhood.

32. Abnormal brain development or damage to brain (lack of oxygen). Infection in early part of pregnancy.

33. Difficult or premature birth (less than 37 weeks), twins or multiple birth. Low birth weight (less than 2.5 lb).

34. Type of Cerebral Palsy determined by whether there is Spasticity (stiff muscles), Dyskinesia (uncontrollable movements) or Ataxia (poor balance and coordination). **Spastic** – most common, some muscles become very stiff and weak **Ataxic** – characterised by Ataxia, problems with balance, co-ordination, shaky hands and jerky speech. **Athetoid** – characterised by athetosis, involuntary movements resulting from rapid change in muscle tone from floppy to intense.

35. Malocclusion – impact on feeding. ‘Drooling’ from poor posture/control of oral musculature.

SECTION V Answers: Preparing for patient visit

Patient assessment

1. Children, young people and older people.

2. People who could be on a low income, economically inactive, unemployed, workless or unable to work due to ill health.

3. People with physical or learning disabilities or difficulties. Refugee groups. People seeking asylum. Travellers. Gypsies. Single parent families. Lesbian and gay and transgender people. Black and Minority Ethnic groups. Religious groups.

4. People living in areas that may be **isolated** (**rural** areas) or areas that are **over populated**. People living in areas of **poor economic** opportunity and/or **poor health** and **limited/no access** to health and social care services or facilities.

5. Referral letter received and patient is appropriate for service. There is system in place for follow-up on future referrals (both in house and externally). Patient information is as comprehensive as possible – need to liaise with GMP, Social Worker and so forth around patient psychological and socio-economic circumstances. Prepare main dental records and any related documents, plus main medical (hospital) notes. Are there any test results available, for example, previous radiographs, INR levels? What is the preferred communication method for patients?
Any coping strategies used by patients – could be that patient may prefer to wait in their car until actual appointment time.

6. Access to building, clinic and fully accessible toilets. Patient ability to transfer into dental chair – can they do this and if so, how? Actual type of treatment being carried out – how long (is patient able to sit in the wheelchair for period of time or need to bring a different seating cushion?). Care of patient if medical emergency arises – what to do and is there space to manage needs? Also if need to evacuate building quickly, confirm route suitable for all wheelchair users. If building has lifts, be aware of where refuge areas are in case of fire.

7. Confirm that an appropriate dental clinic is indeed available – suitability for wheelchair access (if patient can transfer to dental chair) or a wheelchair platform is required (if patient cannot or does not wish to transfer). If the patient is obese, then he or she may need to access a bariatric dental chair. Check clinical rota so that an appropriate skill mix within dental team is available, that is, sedation trained dental nurse to work with Dentist. Post-operative recovery arrangements will also be in place. Do not book any complex treatments too late in the day.

8. Ability to communicate – need for a translator, dementia, learning disability. Ability to co-operate – additional time, requirement for sedation or GA. Medical status – degree of impact of medical or psychiatric condition. Oral risk factors – ability to self-care, dietary needs, Xerostomia. Access to oral care – support needed – transport required, ability to transfer of use of hoist, appropriateness for domiciliary visit. Legal and ethical barriers – consideration in relation to degree of capacity – is the best interest meeting or case conference necessary?

9. Ensure up-to-date and accurate medical history at all times – take a photocopy or scan most recent repeat prescription documents or drug charts. Ensure that the patient has all drugs currently necessary with them for example, inhalers, GTN spray. Timing of appointments to fit in with any other medical care being delivered for example, Dialysis, IV antibiotics cycle for person with Cystic Fibrosis. Adopt a realistic approach (according to the patient's medical health and social needs) to both treatment planning and delivery. Confirm coping strategies used by patient/carer, for example, if tend to be anxious. Strategies may include being able to use numbers to countdown to a break/rest in intervention, for example, use of handpiece and could also communicate by slowly raising a hand on dental nurse side (so as not to knock dentist). Patient/carer need to be kept informed if dental team running late; agree how best to manage any additional waiting for patient (patient/carer can go for short walk or best to cancel and reappoint for another day).

10. American Society of Anaesthesiology Classification of Physical Status (ASA).

11. Modified Dental Anxiety Scale (MDAS). Levels of anxiety are determined by responses given by patients to a short questionnaire: MDAS 5–9, mild; 10–12, moderate; 13–17, high; and 18–25, very high.

12. A swallowing disorder usually resulting from a neurological or physical impairment of the oral, pharyngeal or oesophageal mechanisms.

13. Neurological compromise due to disease or injury or abnormality of central nervous system. Physical impairment, due to Head and Neck Cancer therapy (including surgery, e.g. glossectomy). Also respiratory illness (COPD) and psychological factors.

14. Poor oral hygiene, drooling, coughing/choking, nasal regurgitation, poor chewing ability, taking a long time to eat, food spilling from mouth. Patient reports dry mouth, feeling of food sticking in throat, need to have drinks to hand when eating.

15. It enables inspection of both anatomy and physiology of swallowing.

16. IV bisphosphonate therapy is associated with osteonecrosis of the jaw.

Organising patient transport

1. How far and for how long is the patient able to travel for? Is there a risk of pressure sores or an increase in anxiety level if transport runs late? (Book as early as possible in the morning so less risk of being held up.) Timing of appointment: agree a convenient time for the patient and then book a pick-up time, which will allow appropriate time for patient collection. Does the patient require help in and out of their home – if so, what sort of assistance is needed? Who will meet the transport team? Ask whether patient goes out at all – do they visit the hairdresser, are they able to go shopping, for example? Can the patient use a private car or taxi – are they ambulant? If need to use a taxi, do they have a preferred choice of company? Confirm any travel costs for patients and whether they will be able to claim any costs back.

2. What is the type of appointment being offered – is it for a check up, routine treatment or emergency (unknown) needs? Will a carer be required to accompany the patient especially in relation to post-operative care? If so, who would this need to be (for example someone with parental responsibilities) and how long will the patient need to be supported for post-operatively?

3. Amount of physical mobility the patient has – are they ambulant or require use of a wheelchair? What type of wheelchair – consider size and how powered (manual or battery)? How many people will be attending for appointment and will a carer be travelling with patient?

4. Book well in advance to allow adequate timeframe for interagency collaborative working.
   If a patient needs an ambulance – confirm the patient's needs. Check the best time for travelling to fit in with any drug regime or behavioural needs. Is the patient able to walk, using a wheelchair or requires a stretcher? Remember that patient mobility and fitness may deteriorate post-treatment (for example ME patients) so allow for this with return journeys.

5. What will actually be involved in the treatment, that is, will sedation be used, if so, what type? Is there a possibility that the patient is likely to become more tired or unwell post-treatment? Consider that there could be a requirement to change the transport type at short notice for example from car to wheelchair access. Remember to allow time for patients to be collected and to arrive home at an acceptable time (ideally not travelling home in the dark). Ensure the patient is kept somewhere warm and safe whilst waiting for their transport to arrive.

6. Carry out 'patient experience' questionnaires on completion of appointments. Feedback can be collected over the phone, by email or by letter. Monitor patient 'delivery' and 'collection' times – are patients arriving on time? If not, why? Lack of information, that is, postcodes missing. Are there traffic problems? Arrange appointments to miss rush hour periods. Is appropriate transport being booked? Be sure to collaborate with transport services also. Share patients' feedbacks but also ask for feedback in relation to service organisational procedures overall.

Domiciliary care

1. People who would find it difficult or impossible to attend the dental clinical setting. Physical and learning disabilities, Mental health needs such as dementia, depression or agoraphobia. Medical conditions including terminal health needs. Those with severe difficulty in walking any distance – Emphysema, chronic obstructive pulmonary disease. Patients in hospital or in other settings such as nursing or residential care.

2. Pros – Supports people who are anxious or unable to attend a dental clinical setting. Provides a service for people who may be very frail or unable to travel. Can be very rewarding as get to know more about patient social circumstances (family, day-to-day activity level and abilities). Working as part of the wider health care team to contribute towards an holistic approach to general health and well-being. Opportunity to liaise with district nurses, carers.

3. Cons – Time-consuming (particularly in relation to time taken out for travelling between visits) hence an expensive service to provide. Lots of planning and organisation is required. Only limited range of treatment can be offered for example no access to take X-rays. No back up support available should a medical emergency arise or if patient becomes agitated, distressed or angry. May be pets to contend with in the home. Can be difficult to collect payment for treatment at time of appointment.

4. Lone working, Chaperoning, Environmental (fire, electrical, external access), Manual handling (both for people and equipment), Vehicle insurance, Emergency equipment including oxygen (carriage and use)

5. Emphasis on team approach – ensure workplace knows about all visits (all addresses). Leave full details of vehicles being used (registration number, model and colour) along with mobile phone number. Have an agreed time for returning to workplace before the end of the working day; if running late, advise workplace as appropriate. Have an agreed 'alert' system if have a problem during visit. Have as much detail as possible about patients (both social and medical history) – liaise with a wider health care team – CPN (Community Psychiatric Nurse), GMP, social worker, district nurse. Check whether a third party will be present; if so, find out who this will be (relationship to patients). Who will answer the door to dental team? What parking facilities are available and how best to access the property? Confirm any animals at the address

will be put into another room during visit. Request that there will be 'No Smoking' for the duration of the dental visit.

6. Confirm visit is still necessary and patient fit enough to cope. Get as much information as possible regarding Medical and Social History; have there been any changes since appointment arranged? Confirm address and check access to building. Agree to phone ahead and explain to the patient that the dental team will have their official ID cards. Provide the name of the dentist to the patient. Check whether third party is present – if so, who this will be (relationship to patient). Be mindful of being able to carry out adequate infection control for both the patient and dental team; is there access to hand washing for example? Confirm patient is able to give valid consent – if not, how will this be managed?

7. Ensure the correct patient is being seen and confirm level of overall health and well-being. Ask to see any patient held records – check for any recent visits or change in drug therapy. Ongoing risk assessment in relation to environment and manual handling. What access is there to see the patient (are they seated or lying in bed). Are there any animals wandering around? Carry out comprehensive dental assessment as far as possible, plan or review the dental treatment plan. Work in the patient's best interests at all times; weigh up benefits of treatment versus risk of delivery within the context of the patient's overall health and well-being on the day. If need to move any furniture, ensure all items are replaced in exactly the same place afterwards; this is very important for people with visual impairment.

8. Dental examinations, supply of prescriptions, provision of dentures and related care (denture ease) temporary dressings, scale and polish, oral hygiene instruction.

9. Minimal Intervention approach to treatment – use of Carisolv, denture reline/copy denture technique. Choice of dental materials used will be those that require minimal preparation or management that is use of topical fluoride varnish rather than fissure sealants, use of dental materials that do not require light curing. Use of temporary dressings as necessary with follow-up arrangements made to bring patients into clinic. Timing of treatment: try to offer majority of appointments in the morning or early afternoon, avoid extracting teeth at end of the day (to reduce the risk of having to seek emergency care). Continually reassess the need and coping ability and may need to review treatment plan and re-schedule delivery format. Appointment times may be shortened and more frequent rather than one long appointment.

10. Infection control risk (unclean/unhealthy environment around patient). Patient health on the day is not good or begins to deteriorate during treatment. Maintaining a safe working position when delivering care for the patient is very important. If the patient is in bed then this can make treatment more difficult for both patient and the clinical operator. Good suction indicated during treatment or an X-ray may be required. Poor lighting and visual working field – due to patient posture or ability to open mouth (both in terms of how wide the mouth can be opened and for how long the patient is able to keep the mouth open).

11. Along with emergency care kit, will require PPE items (latex free gloves, safety glasses, mask/visor, disposable apron), clinical waste bags, sharps container, gauze swabs/cotton wool rolls, selection of dental materials and instruments according to dental intervention (for example Examination, Prosthetic, Periodontal) Suitable and labelled container/box for safe carriage of contaminated instruments, disposable paper covers/bibs, headlamp and pen torches (spare batteries), vomit bowl, tissues, alcohol hand rub, hand mirror, dental model/spare toothbrushes.

12. Dental team identity cards, mobile phones, pens/pencils/plain papers, BNF, patient record cards, medical history forms, consent forms, FP17DC forms, laboratory forms, prescription sheets and stamps (serial numbers logged with workplace), appointment cards, change for car parking, oral health education information, contact numbers for dental team.

SECTION VI Answers: Patient care during treatment

Role of the dental nurse

1. The dental nurse can welcome the patient and their carer, making particular use of any personal preference information that may have been supplied in advance. Following on from acclimatisation visit prior to the treatment appointment, it is useful to confirm whether there are any questions from the patient (and carer). A support book containing photographs of the activities covered to date can be used to initiate and support discussion. The main role of the dental nurse is to ensure patient comfort, care and safety.

2. Support can be provided in different ways, which include the following four main headings: Emotional, Physical, Communication and Monitoring.

3. Collect as much pre-visit information as possible especially around the preferred communication method and language level. Ensure use of lay terms throughout treatment as appropriate to both age and cognitive ability. Facilitate casual chat as necessary but keep to the minimum so as not to distract the patient too much. Ask closed questions that require Yes or No answers (the patient can indicate by a thumbs up or down action).

4. Desensitisation (this could be acclimatisation and/or exposure to the key 'trigger'), Hypnotherapy, Use of Imagery, Cognitive Behavioural Therapy (CBT) or Neuro-Linguistic Programming (NLP). Meditation or Mindfulness training may help to change how patients may think and feel about their dental experiences.

5. Provide a checklist for what is going to happen; patients can 'tick off' each part. Allow use of headphones to reduce background noise down to one source. Offer use of tinted/dark safety glasses. Encourage patients to wear their most 'comfortable' clothing. Ensure items to be used on the day are the same as any samples that have been provided in advance of the appointment for use in the home (disposable glove or piece of dental chair fabric). This will help support the patient, during the appointment, in relation to being able to cope with smell, colour and texture.

6. Direct physical contact with patients – dental team member holds the patient's hand. Use of treatment, materials or equipment to restrict movement for example sedation, papoose board, splints. In care settings, this may include use of doors with bolts placed out of reach of service users or requirement for use of double handles (one at top and one at bottom of door).

7. Relaxation techniques such as deep breathing (including Mindfulness) and self hypnosis. Distraction techniques such as squeezing a ball or counting back from number ten down to one. A TENS machine (transcutaneous electrical nerve stimulation) may also help.

8. Oral function and/or structure preventing access to the mouth may include restricted opening of the mouth for example trismus due to post Head and Neck cancer therapy (including surgery to soft/hard facial tissue). TMJ difficulties due to arthritis (unable to open the mouth fully or for long periods of time) so dental treatment may need to be delivered in shorter sessions. Oral musculature: There may be difficulty in controlling movement so there is a risk that the mouth may clamp shut suddenly without warning. Muscle tone reduced (hypotonia) or may be variable level of spasticity. Also, the actual size of the mouth and related oral structures, if small, can be a barrier.

9. Very small lower jaw – micrognathia

10. Macroglossia

11. Patients may have a strong tongue thrust that can make use of dental instruments difficult. The tongue may well 'drape' over the lower teeth so will need to be retracted out of operator working field of vision. It can also impact on swallowing, breathing and saliva control.

12. Minor strands of muscle tissue, which can be found in different parts of the mouth attaching cheek, lips and/or tongue to the related dental mucosa.

13. Access to the mouth can be difficult (particularly low anterior region) due to very strong and tight oral musculature, which will include any related frenum or frena. These oral structures may also complicate oral feeding in infancy. Sometimes, a frenum may be attached 'high' or very near to the actual gingival margin; this can mean effective disruption of the dental bacterial biofilm with a tooth brush could be more difficult.

14. Attachment of lingual frenum, which may result in 'tongue tie'.

15. Use of the Bedi™ wedge – plastic wedge to prop mouth open. The patient head's may be supported by using a neck cushion or the dental nurse may gently support. Two toothbrushes can be used – place brush heads together (bristles to bristles) and place between teeth. Photographic cheek retractors are useful for holding soft tissues away from teeth.

16. Dental Nurse can provide ongoing reassurance, explanation and guidance to patients throughout the appointment. Monitor the patient at all times (especially non-verbal body language): taking note of any change in breathing, increase in restlessness or if becoming more agitated, any tightening of the oral musculature (may notice during aspiration). Ensure effective suction as far as possible. Participate in an approved clinical holding technique as may be required according to the agreed best practice protocol for example hand over hand.

Ongoing risk assessment

1. Special Care Dentistry, Conscious Sedation, Consent (especially MCA), Infection Control, Medical Emergencies, Moving and Handling, Conflict Resolution, Personal Safety, Storage and Handling of Medicines.

2. Need to minimise or totally remove any actual need for the 'lifting of patients' whenever possible to protect both the patient and the dental team. Be sure to check or confirm weight

of the patient. Ask patients what assistance they need to transfer in and out of the dental chair. Find out what they are able to do for themselves and whether there may be a better time of day for them to carry this out. Clarify whether the patient able to lie flat for long periods – how far can they lay back? Encourage patients to use their own equipment whenever possible – this will help provide confidence. Continually risk assess patient situation throughout the delivery of care.

3. Enables patients who are wheelchair users to remain in their own wheelchair for dental care. Wheelchair is positioned on the platform (an area of floor that can move) up against the support framework. When the platform (floor) is activated, both the wheelchair and the patient are slowly tipped upwards and backwards. Once this has been done, the wheelchair is in a reclined position, which provides a much safer working position for both the patient and clinician. Some wheelchairs have their own facility to recline the wheelchair back.

4. If there is loss of sensation in lower limbs, the dental team needs to be aware of the risk of trauma or knocks (to legs) as the patient will be unable to advise if this happens. Also be aware of changes in body temperature – again, the patient may not notice that he or she is getting cold.

5. Transfer board (banana board): This is used as a 'bridge' for the patient to slide across from the wheelchair to the dental chair. Hoists (large slings) can be fixed, which run on a track from a ceiling or portable (frame on wheels). A portable rotating 'turntable' can be used for patients who can weight bear/stand upright. Use of a 'swivel' cushion can assist as whole body is able to be rotated around in one move.

6. Face – any sign of change: does one side droop? Arm – can both arms be lifted? Speech – can the person repeat something you ask them? Tongue – can this be moved from side to side?

7. Monitor the patient on arrival and throughout appointment. If necessary, check if a carer is present.
Confirm drug list up to date – ask the patient to bring repeat prescriptions (photocopy/scan into notes). Check health condition/s are well controlled/stable. Ask if the patient has brought any self-administered drugs with them (inhalers, GTN spray). Do not run late for appointments.

8. Epilepsy, Asthma, Heart conditions.

9. Physical disabilities, Parkinson's disease, Gag reflex (patient can become more anxious).

10. Vascular problems (Stroke/Thrombosis risk) as medication taken may require monitoring (INR levels). Look at overall stability – check the patient's record book and check INR on the day of treatment. Epilepsy: ask about date of last seizure, frequency, type, how managed. Ask if any triggers and whether any are associated with dental care. Check whether the patient is able to recognise any aura. Diabetes: Check whether the patient's oral health has deteriorated and gingival inflammation increased (be difficult to place restorations at gingival margin).

11. Complexity of medical history – any bleeding disorders or polypharmacy. Patient has challenging behaviour, so actions may be unpredictable. Dental phobia – prevent further anxiety and anxiety management. Limited coping skills and ability due to both involuntary actions and reduced tolerance. Profound multiple communication needs – unable to understand the

need for treatment and/or the treatment delivery requirements. Not able to sit still for any period of time, poor attention span or unable to keep mouth open for long enough.

Treatment modification

1. Due to the complex and diverse needs of Special Care patients, any changes in patient health and social care needs (since the previous appointment) can have a huge impact on patient care and management. It is not uncommon for planned treatment interventions to require full re-evaluation. Reasons for this include unable to gain appropriate consent on the day. There may be physiological deterioration in general and/or oral health – patients may have a very sore mouth so unable to even open the mouth. Patients may have become unwell – more frail or tired with reduced coping skills. Changes in physical health can make a patient more anxious about letting anyone touch the area of pain. Patient behaviour can then become even more unpredictable, which can make the whole treatment session quite stressful for everyone involved. If there are any changes in the patient medication regime such as a new medication being taken, an increase in dosage or change in timing, then all of this will be 'unknown territory', which again can be unsettling.

2. Carry out a full review of the planned interventions according to clinical need along with how the interventions will be delivered. Modifications around delivery timeframe can include the following: changing the day of the week or time of day, reducing the actual number of appointments, increasing the length of each appointment, reducing the length of each appointment or facilitating longer periods of time between each appointment.

3. Consider whether to carry out less treatment than was planned for the visit, that is, just carrying out scaling of lower anterior teeth only rather than whole mouth. Working on anterior teeth will be easier for the patient to cope with and, in turn, will help support the patient to be able to experience dental treatment. It is better to attempt a little and praise the patient especially if they have always only had dental treatment previously under sedation for example. Alternatively, using the appointment to offer a 'show, tell, do' opportunity (in preparation for carrying out the procedure at next visit) can be very beneficial as this will enable a patient to experience a positive dental intervention. Take time to be able to explain everything and be sure to allow patients to assimilate information. Include sensory experiences where possible such as patients hearing the handpiece far away from their face initially and then bring it closer. Finish appointments on a positive activity such as the provision of oral hygiene instruction or helping the patient to carry out some toothbrushing – this is an activity that the patient will be able to continue with and to link back to the dental clinic (and become part of daily thought processes).

SECTION VII Answers: Pain and anxiety management

Different types of pain

1. May be moaning, crying or shouting out. Could be mood swings along with a change in behaviour – person may become agitated, pacing up and down or sitting rocking to and fro. Could also become withdrawn and not participate in daily activity. May also include self-injurious behaviours such as 'pulling' at or 'hitting own face' or self-harming (biting own

hand or banging forehead). If the person starts to refuse food and drinks or ceases to wear their denture/s, dental pain should be considered. Another sign could be disturbed sleep.

2. Acute periodontal infection (ulcerative gingivitis/periodontitis). Abscess. Carious lesions. Cracked tooth (transient acute pain, mainly during chewing). Dentine hypersensitivity. Dry socket (infection or loss of clot leading to osteitis). Delayed shedding and eruption of teeth.

3. Clenching – clamping the teeth (and jaws) together in occlusion due to stress or physical effort. Bruxism – parafunctional grinding of the teeth.

4. Outside of the oral cavity.

5. Lining of the oral cavity as well as other canals and cavities of the body, also called mucosa.

6. Referred – caused in one area of the body but felt in another. Psychosomatic – due to mental or emotional problems rather than physical disease. Neuropathic – pain (neuralgia) from problems with signals from nerves. Neurovascular – headaches (group of pain disorders felt in head). Musculoskeletal – affects bone, muscles, tendons, nerves; can be mild to severe, acute or chronic.

7. A therapy, originated from China, involves insertion of very fine, thin needles into specific points of the body to reduce pain, induce anaesthesia or reduce nausea (acts mainly by stimulating nervous system).

8. Therapy involving the application of pressure (using thumbs or fingertips) to relieve tension or pain. Uses same points on the body as for Acupuncture.

9. Hyperalgesia – the pain sensation can be either localised or widespread.

10. Allodynia is pain caused by a stimulus that would not normally cause pain. Believed to be a hypersensitive reaction, particularly in people who have fibromyalgia. Types of allodynia include tactile (from being touched), mechanical (from clothing on skin) and thermal (temperature related).

Non-pharmacological pain and behavioural management

1. Psychological and physical interventions. Not intended as an analgesic but can be beneficial in the own right.

2. Full assessment of patient needs and treatment being planned. How the patient will respond to the suggested intervention. Clinician confidence, skill and experience.

3. Includes the use of a technique or therapy to alter or control the action of person receiving treatment.

4. Use of a papoose board, provision of education or use of an anxiety relief technique.

5. It can support behaviour management as it provides patient support during dental treatment through immobilisation.

6. Diverting the patient attention to stimuli other than pain sensation. Does not remove the pain but may enable it to become more bearable (less pain intensity). Includes the use of imagery or listening to music.

7. Allow the patient to guide the level, type and number of questions. Show an active listening approach to provide reassurance. Encourage an opportunity for the patient to raise any concerns whether on a personal and/or treatment-related basis.

8. Wearing of a splint. Giving an indication when feel it is necessary to change position such as rubbing an area that is starting to stiffen. Limping when walking can also alleviate pain.

9. Heat – increase in blood flow due to vasodilation. May help reduce muscle spasms.
Cold – reduces bleeding and oedema due to vasoconstriction. Can decrease inflammation.

10. Ensure patients can indicate when they need to change position. Factor in additional time to facilitate this. Use of support items in the dental chair (cushions/wedges) will help maintain body alignment and positioning of limbs. Agree a method of communication with patients to indicate when a rest may also be needed during treatment; this will help alleviate anxiety and reduce risk of any further stress. Allowing a patient to bring a pillow or comforter from home also offers psychological support.

11. This approach is used for carrying out dental examination or simple treatment (fluoride varnish application) in young children. Parent/carer sits facing the clinician knee to knee with child head on clinician lap and lower part of body on carer lap.

12. A short-term talking therapy used to help persons manage their problems by changing the way they think and behave.

13. Neuro-linguistic programming – an alternative therapy used to educate people in self-awareness. Exploration of three influential components in producing human experience, neurology, language and how we are programmed.

14. Allow time as necessary, not on a busy clinic day. Patient to watch dental chair being operated up and down, back and forth. Facilitate hands-on experience – touch and smell gloves, noise of suction (allow the patient to suction water out of a glass), see how dental light works (shine on hand first), warn the patient that they will feel some heat from the light on their face, use of powered toothbrushes can familiarise patients with the sensation of mechanical procedures and sensations in the mouth. Using a rubber cup to polish a fingernail will assist introduction of the dental handpiece.

Mental health

1. Mental health impairment is the term used to describe people who have experienced psychiatric problems or mental ill health or illness.

2. Disorders of mood or feeling states – can be either acute or chronic.

3. Likely to have low self-esteem, poor sleep pattern and diet resulting in poor general health all round. Unlikely to be interested in 'self-care' with oral health a low priority. Clinical

depression is a severe form of depression and can be life threatening (with feelings of suicide). Another form of depression is post-natal depression (occurs after childbirth).

4. Bipolar disorder (extreme mood swings – from being highly excited or 'manic' versus a deep depression. There may also be periods of 'stability' on occasion.

5. Psychotic illness characterised by disturbances of thinking, mood and behaviour is called schizophrenia. Includes loss of contact with real world and lack of insight. Linked to structural brain abnormality and genetics. Person may hear voices telling them what to do or warn of danger (say they receive messages through amalgam fillings). May hallucinate, be delusional and have disorganised thinking (lack of logic). Negative symptoms include loss or reduction of normal functioning leading to withdrawal, apathy, lack of emotion (no facial expression).

6. Ability to self-care is diminished due to low self-esteem with an increased risk of mouth cancer due to tobacco and alcohol use along with poor diet. Poor compliance with oral health advice, irregular attendance and short notice cancellations. May have xerostomia so increased risk of dental disease or hyper-salivation. Tardive dyskinesia – disorder of central nervous system – resulting in involuntary muscle contractions so may be in pain (including facial muscles and jaw). Frequently involves tongue (thrusts and protrusion).

7. It would be difficult for the person to change their feelings or actual behaviour. May have limited emotional response. If severe, it can cause significant impairment of day-to-day activities.

8. Very deep distress. Self-harm is any act of self-poisoning (with medication) or self-injury (by cutting). It is a form of communication of feelings that are too difficult to think or talk about.

9. Anxiety disorder – an abnormal fear of being in crowds, public places or open areas, sometimes accompanied by anxiety attacks. Fear of being in situations where escape might be difficult, or help would not be available if things go wrong.

10. An exaggerated or unrealistic (irrational) fear or sense of danger about a situation or an object (including people).

11. Increased heartbeat, upset stomach, feeling tense and/or shaky. A panic attack may also accompany high anxiety.

12. Difficulty in breathing and feeling of heart beating hard. May have choking sensation, begin to tremble or feel faint. Can occur at any time so are different from a 'natural' response to danger.

13. A term used to describe someone who may be neurotic – socially acceptable term – feelings of being stressed, anxious. Non-psychotic.

14. Obsessions may be due to unpleasant thoughts or images. Obsessive thoughts cause anxiety, leading to ritual or repetitive actions. Compulsion due to thoughts or actions that person feels must be done. Not fully understood – multifactorial. Person is usually aware they are having OCD. Typically starts in adolescence.

15. Prader–Willi Syndrome – genetically based, affects both sexes, linked to disorder of chromosome 15. Associated with oesophageal reflux, moderate cognitive impairment, hypotonia (affecting motor skills), delayed speech and hypogonadism.

16. Persistent eating of non-nutritive items (chalk, soil) – must persist for more than one month and age must be that where eating such items would be developmentally inappropriate. Can be considered as form of self-harm also.

17. Eating Disorders – seen in both males and females. Due to extreme emotion and behaviour around food and weight issues, can have serious physical and emotional consequences. **Anorexia Nervosa** – 'lost' appetite for 'nervous' or psychological reasons (anxiety, body image distortions). Unable to maintain body weight through intentional restriction of food. Two types: Restrictive (food intake restriction is sole behaviour) and Binge/Purging – restrictive practice accompanied by self-induced vomiting, excessive exercising, use of laxatives. **Bulimia Nervosa** – usually undetected for a long period. May see calluses (Russell's sign) on back of hand/fingers due to induced vomiting. **Binge Eating Disorder** – recurrent binge eating without compensatory purging.

18. Having an 'unhealthy obsession' with otherwise healthy eating. Starts out as trying to eat more healthily but then becomes a 'fixation' on actual food quality and purity rather than weight loss or being 'thin'.

19. A simple five-question screening tool for use to assess possible presence of an eating disorder.

20. Lanugo.

21. Abrasion of knuckles on hand. Soft palate trauma. Loss of enamel on teeth due to dental erosion (from regurgitation of stomach acids) and abrasion (from brushing teeth immediately after vomiting).

22. Solvent abuse – red, sore areas around nose. Alcohol – dental erosion, also may drink lots of fluids (fizzies) due to needing to keep hydrated through the use of Ecstasy. Methadone (heroin substitute) – high in sugar but can get sugar free now – risk of caries increased. Localised areas of gingival inflammation or recession – rubbing cocaine topically into gingivae. Legal Highs are now a frequent factor for increased risk of poor mental health.

23. Risk of erosive gastritis, upper gastrointestinal bleeding, peripheral neuropathy, brain disorder (Korsakoff's Syndrome). Chronic alcoholic may have recurrent bouts of jaundice leading to episodes of alcoholic hepatitis. Trauma to teeth from falls and fights. Poor nutritional state (malnutrition) so impaired wound healing.

SECTION VIII Answers: Promoting good oral health

Whole life spectrum

1. Infant: Birth to 1 year; child: 1 year to puberty (12/13); adolescent: puberty to 18 years.

2. 28th week of pregnancy to 28th day after birth.

3. 'Present at birth' – a prenatal condition.

4. Can be found before birth, at birth or any time thereafter. May vary from mild to severe and affect any part of body and how that part may look, work or both.

5. Heart defects – such as Ventricular Septal Defect, Tetralogy of Fallot, Coarctation of the Aorta (aorta narrower than usual). Cleft Lip and Palate (can have cleft lip, cleft palate or both cleft lip and cleft palate).

6. It is a congenital deformity occurs due to lack of fusion of soft and/or hard palates and may present as partial or complete lack of fusion of these tissues.

7. A disability caused by an impairment that occurs after the developmental years.

8. Arthritis, Multiple Sclerosis.

9. Begins anytime during the development period to around 18 years; usually lasts throughout life.

10. It refers to slow or impaired development of a child younger than 5 years of age at the risk of having a developmental disability.

11. 1. Cognitive (learning, memory, thinking and reasoning skills).
    2. Language and Speech (ability to communicate, express and receive information, form sentences, follow instructions).
    3. Motor (fine and gross skills – hand and eye coordination, ability to walk).
    4. Social and Emotional (interaction with others, recognition of social cues).

12. It is significant delay in two or more developmental domains, late in reaching developmental milestones.

13. Most begin before baby is born, but some can occur because of injury, infection or other factors. Complex mix of factors including genetics, parental health (smoking/alcohol) or illness, for example, infection in uterus during pregnancy, complications during birth (lack of oxygen), infection in early life (Meningitis) or illness (untreated newborn Jaundice). Low birthweight, premature birth and multiple birth are associated with increased risk.

14. 'Intellectual' disability is a disability characterised by limitations in ability to learn at an expected level. Children with 'intellectual' disability may take longer to learn to walk and talk, may have trouble remembering things and may be unable to understand social rules.

15. In relation to the ageing process, it is useful to ascertain whether the patient is 'functionally' dependent or independent.

16. Paediatric.

17. Gerodontology.

18. The functional relationship of maxilla and mandible.

19. Artificial replacement of any part of the body.

20. A prosthesis to close an opening in the palate; may be disc or plate to close the opening.

Interdisciplinary and multi-agency working

1. Multidisciplinary team – also known as inter-disciplinary team (the word 'inter' is suggestive of more collaborative engagement, that is delivery of patient care being 'shared' between disciplines, rather than having 'many' disciplines all providing their part of the care).

2. To encourage communication between the General Dental Practitioner and General Medical Practitioner in relation to sharing care and management of patients who have Diabetes.

3. SALT: Speech and Language Therapy; CPN: Community Psychiatric Nurse; OT: Occupational Therapy.

4. Nutritional tool – The Malnutrition Universal Screening Tool (MUST). The MUST was developed in 2003 by a multidisciplinary Malnutrition Advisory Group (MAG), a standing committee of the British Association for Parenteral and Enteral Nutrition (BAPEN).

5. Enteral Nutrition (EN) is tube feeding achieved via different types of tubes. Parenteral Nutrition is intravenous feeding to get nutritional requirements into the body through veins. Commonly referred to as Total Parenteral Nutrition (TPN) despite the fact that some patients may need to receive only certain types of nutrients intravenously.

6. Enteral Nutrition (EN), tube feeding via different types of tubes: Nasoenteric feeding – tube placed down through the nose into the stomach or bowel, which includes naso gastric (NG), naso duodenal and naso jejunal (NJ) feeding. Nutritional requirements may also be provided directly through the skin into the stomach or bowel (enterostomy feeding) known as Percutaneous Endoscopic Gastrostomy (PEG) or Percutaneous Endoscopic Jejunostomy (PEJ) feeding.

7. A physical therapy to improve movement and posture.

8. An assessment for need and provision of a surgical appliance (Orthoses) to either remedy or relieve a medical condition or disability.

9. An apparatus (appliance) used to support, align, prevent or correct deformities. Also includes support for improving the function of movable parts of the body so may prevent the development of a more disabling condition. Examples are footwear, compression stockings, knee or spinal braces.

Facilitating good oral health

1. Remember to include and involve family members as appropriate with patient consent. Ensure all key oral health messages are given according to *Delivering Better Oral Health*, 3rd edition (Patients with Special Concern). All messages have to be provided in an accessible

(for example easy read, large print, audio) format. Promote the use of sugar-free medicines whenever possible. If not sugar-free medication, protect oral health where possible for example by trying to have medicine as near to a meal time as possible/rinse mouth with water after use of inhalers. Encourage regular soft tissue checks by care giver for mouth cancer, trauma.

Consider the impact of any snacks and drinks being offered to patients by carers – are they 'safer for teeth' choices? NB check if special dietary needs. Advise never too late to quit smoking, the single most important action a person can take to help reduce ill health. Be alcohol aware – advise on recommended daily unit intake for both men (3–4) and women (2–3).

2. Topical fluoride varnish can be applied according to clinical indication. Teeth can be fissure sealed as appropriate as soon possible post eruption. Continuing care visits to dental team will be implemented in a timely manner according to the health need and dental disease risk. Dental team is available for advice and support on an ongoing basis. Also advise that any advice given may indeed change and that all advice will always be in the best interests of patients according to the current evidence base (an example for this would be when guidelines for Antibiotic Cover were changed by NICE).

3. Involve carer in actual delivery of oral health care according to the patient's clinical need; this should be via a 'hands-on' demonstration in the clinic. Encourage the carer to ask any questions they may wish to. Ensure all appropriate items are available as necessary (gloves, oral hygiene aids, towel) and the patient has given consent. Involve the patient as much as possible and be guided by both the patient and carer as to how much may be achieved in each visit. Demonstrate suggested brushing technique for the carer to observe and then ask the carer to demonstrate back whilst under observation of a dental professional. Feedback to the carer as appropriate, taking into account all/any feedback from the patient (NB take note of both verbal and non-verbal feedbacks of both the patient and the carer).

4. Operator visual field will be clearer due to lack of froth from toothpaste so it will be easier to see where to brush. Will be able to monitor pressure of brushing (watch for gentle blanching of gingival tissue) and also enable more effective positioning of actual toothbrush bristles at gingival margin. There will be less risk of gagging as will be able to see where the head of the toothbrush is actually in the mouth of the recipient at all times. Sometimes it is useful to start brushing in the posterior region of the mouth so the patient knows that the 'fiddly bit' has been done (and can relax) and likely be more receptive to the rest of the care continuing. If any bleeding on brushing does occur, it will not appear so evident, which will be less stressful for the patient. Remember, a small amount of blood mixed with toothpaste can look much more than it really is – mention this to both the patient and carer.

5. Toothbrush handles – brush handle may be pushed through the middle a soft ball (like tennis ball) or the handle can be made longer by tying the brush to another item for example a ruler covered in tape. A stretchy strap can be wrapped around the hand to assist with keeping toothbrush in place (and lower risk of brush being dropped). Use of specialist toothbrushes such as those with heads that have three sides of bristles for example. Check if the patient is using any other adapted items such as eating utensils so that a consistent approach can be implemented (to ensure the same diameter for the width of handles). For inter-dental cleaning, *one-handed* oral hygiene aids such as bottle brushes, wood sticks, pre-loaded floss picks may be useful.

6. Why is a new brush required? Problem with technique (brushing too vigorously so risk of trauma and/or abrasion) or health needs (unable to move brush around the mouth). Does the person prefer a manual or powered brush? Ascertain whether any limited manual dexterity, if so, is it due to reduced strength and/or grip ability or poor co-ordination? Be aware of the actual length, width and texture (i.e. covering) of the brush handle. Total weight of item (if battery powered, remember to include the weight of batteries and the brush head attached). How is the brush operated – it is easy with one button for 'on/off' or is there a need to press a button several times for different brushing modes? Can the buttons be seen easily or operated by purely by touch? What is the speed of the brushing action – how fast does it rotate/will it be too vigorous for the person to control at gingival margin? What sort of noise level and what are the types of noises associated with different models?

7. Explain why fluoride toothpaste is important (and that fluoride does not have any taste or smell). Choose toothpastes that do not contain any flavours or colours nor have any texture. These will be more acceptable for people who have high sensory needs (Autistic Spectrum Disorder). A non-foaming toothpaste will remove the risk of frothing so less risk of aspiration if swallow impairment or no ability for spitting out. Dental bacterial biofilm will be mechanically disrupted and mouth can be wiped out as necessary afterwards. No need for rinsing. Remember to show how to apply the correct amount of paste onto the toothbrush.

8. Provide support to both the patient and carer – the aim is to be able to achieve good oral health using an effective, safe and non-traumatic brushing technique. Check medical history for changes – consult with Dentist as necessary. Confirm the patient's medical needs – is there any swallow impairment? Check position of patient especially if in bed (NB risk of choking). Use a non-foaming toothpaste so that it is easier to see where to place the brush during toothbrushing – this will help ensure brushing can be more focussed at gingival margins. If the patient is taking many medications (poly-pharmacy), is there a better time to carry out oral health care so that the patient may cope more easily? Could half of the mouth be brushed in the morning with the other side being brushing at night for example? Explain about safe and effective plaque control ensuring infection control risk for both the patient and carer is addressed as appropriate (whether talking to a family carer versus professionally employed carer). If the toothpaste has a high content of fluoride (such as those which are POM), remind the patient/carer about safe handling and storage.

9. Persons must be treated with dignity and respect at all times. Has consent for the intervention been given? Allowing someone else to clean your teeth is a very trustful thing to do. Carer to confirm how much the person can do on 'self-care' basis versus what care the carer will or need to provide. Ensure maximum independence is facilitated as far as possible through discussion with the patient. Evaluate whether an adapted brush or specialist brush may be needed due to any limited manual dexterity needs. Also consider the ability to open the mouth – how wide and for how long (could be restricted due to arthritis). Perhaps brush half of the mouth in the morning (for example one side) with other half (side) completed at the night-time brushing. Look at the timing of medications, depending on when medication is taken may mean person will have more ability to cope with the oral care intervention (such as reduced tremors).

10. Provision of a 'mouth map' for each patient accurately indicates exactly which teeth are actually present in the mouth. This will assist carers greatly when looking in the mouth as they will see what they are expecting to see (as indicated via the mouth map). Many carers

do not know where all retained teeth will be for example if a single upper posterior molar tooth is present, it may well be missed as will be tucked far away in the back of mouth. Also include notes (and names) of any recommended oral hygiene products and aids for the patient to use.

11. Ensure people who wear dentures are seen by a dentist as often as clinically indicated. Check that dentures are named. If dentures do not fit very well, it may be due to dry mouth (as a result of Xerostomia) or loss of muscle tone (facial paralysis due to a Stroke). Explain how some certain foods, such as tomato pips, can get underneath dentures. A dental opinion should be sought so that a full oral health assessment can be carried out; this is especially important if the patient has an unexpected weight loss or has started to remove their dentures or the patient is now refusing food and drink. Oral tissues need to be checked for any sores or discomfort (denture may need 'easing'). It has also been known for previously unerupted teeth to have grown in the mouth thus interfering with denture fit. Advise on denture hygiene and care of any remaining natural teeth too.

12. Treatment to be carried out must be in the best interests of the patient at all times. However, family members may also need to be reassured and supported throughout the care of their loved one. It can be very distressing for a family member to see their parent with no teeth especially when, prior to progression of the illness (such as Dementia), the parent would never have been seen without their denture/s in place. Need to advise that sometimes when new dentures are provided, it can be very difficult for the person to 'learn to wear' them. Many factors need considering when determining whether or not to supply new dentures (or would a reline be more appropriate). Also it is not uncommon for dentures to be misplaced – they may be removed and then the patient may forget to put them back in or the patient actually forgets where they have left them.

13. Ensure a suitable toothbrush and appropriate fluoride toothpaste is used at night and at least on one other occasion. Higher fluoride level content toothpaste may need to be prescribed. Use a straw as much as possible. Rinse mouth with water after high-calorie drink. Keep other sugary foods and drinks to mealtimes as far as possible.

14. A person may be living in a care setting (could be residential care, nursing care or supported living). Depending on the care setting and health needs, a person may not be able to choose 'when' they eat or drink (especially if fully dependent on care team) nor will they have much influence on 'what' they eat and drink. It is not uncommon to see glasses of squash on hand for people to sip all day; whilst it is important that fluid is being maintained, there will be no nutritional value (provides empty calories only). Continually sipping on such drinks can impact on appetite, resulting in the person not feeling hungry at mealtimes. Meals may be being provided by 'Meal on Wheels' and ability to self-feed is crucial; if not able to eat (unable to cut meat up for example), then person could start to supplement with 'easier to handle' foods especially those that do not require any preparation (biscuits). Loneliness can also lead to loss of interest in preparing meals.

15. Risk of trauma may be increased due to seizures or motor skills/co-ordination deficits/self-hitting. Suggest a mouth guard to be worn if possible particularly when out and about of usual accommodation setting. Provide advice on what to do in the event of a tooth being fractured or knocked out.