



General Certificate of Education

Health and Social Care

8621/8623/8626/8627/8629

HC15 Clients with Disabilities

Mark Scheme

2010 examination - January series

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- 1 (a) (Osteo)Arthritis (1) Stroke/CVA (1) 1 mark
- 1 (b) By interviewing him about his needs/abilities/presence of carers (1)
By observation eg of his appearance/behaviour/living conditions (1)
By asking him to demonstrate what he can do (1) 2 marks
- 1 (c) The NHS and Community Care Act 1990 1 mark
- 1 (d) A service where clients travel to a centre(1) can be 1 day a week or up to 5 days/can be for part of a day (1) in Bryan's case specialising in elderly.(1) The centre can monitor health(1) refer him to other practitioners if required.(1) Transport is provided.(1) Day care is specialised for different groups eg age/disability (1) transition to residential care(1) helps clients remain at home (1) respite care for carers (1) can be provided by charities/lea/within residential care(1) provides opportunities for social contact (1) food (1) personal care eg bath/hair dresser 4 marks
- 1 (e) Up to 4 marks for each LQF (1 for identification, 1 or 2 for explaining why it is lacking and 1 or 2 for suggesting how day care can help) If the LQF is not named correctly – no marks for description.

Social Contact – Bryan is probably spending most of his time alone due to the death of his wife, a loss of confidence and his mobility problems. The day centre will provide him with opportunities to be with other people and improve his sense of self.

Effective communication - Bryan is probably lonely, grieving for his wife, and missing opportunities for communicating with others. The centre can enable him to ask questions and receive answers, to be listened to. He might have questions regarding being told not to drive.

Social support - Bryan's wife provided Bryan's social support and acted in Bryan's interest. In her absence he will need other key workers to support him. Day care could provide this. There might be an advocacy service there.

Psychological security –The loss of Bryan's wife will have created a lot of anxiety and loss of confidence. The centre could put Bryan in touch with bereavement support

Stimulation –Bryan is likely to be spending a lot of time at home alone. He is likely to feel bored and require stimulating to make life interesting and challenging especially if his wife was the main source for his stimulation. Day care can provide a stimulating environment (see examples in 'occupation')

Occupation – is having something interesting or worthwhile to do such as a hobby. Day care can provide occupation in the form of crafts or quizzes.

Physical lifestyle factors

Nutrition – The day centre will provide a cooked meal. This is particularly important for Bryan as he is used to his wife doing the cooking and without her he may not be eating properly.

Exercise – Bryan’s mobility is deteriorating and if he is not using his car he may be housebound. Day care could provide exercise in the form of exercise classes and other activities.

Hygiene – Bryan might be given the opportunity to have a bath. He might be taking less care of himself due to the absence of his wife and subsequent depression.

Other life quality factors are confidentiality, dignity, privacy, equitable treatment, autonomy and choice. These should only be credited if they are made relevant by linking to Bryan and a day centre. 12 marks

2 (a)(i) a chromosomal abnormality – Down’s Syndrome 1 mark

2 (a)(ii) a birth trauma – Cerebral Palsy 1 mark

2 (a)(iii) an infectious disease – deafness/ acquired learning disability/visual impairment (Don’t award meningitis/rubella alone) Cerebral palsy can be the result of infections during the first few months or years of life. 1 mark

2(a)(iv) foetal deficiency of folic acid(B9) – Spina Bifida 1 mark

2 (b) 1 mark for naming a pre-natal screening test (up to 2), plus 2 marks each for accurate description/ detail of procedure and 1 mark each for correctly linking with a disability condition. (1+2+1) x 2

Likely answers:

Chorionic villus sampling (1). Allow CVS

Plus 2 marks for any 2 from: 10 weeks(1) A sample is taken of the placenta (1) either using a needle through the woman’s abdomen/transabdominal (1) or a catheter through the cervix/transcervical (1) ultrasound scanning is used to position needle (1) tissue sample is tested for chromosomal abnormalities. (1)

Plus 1 for: This tests for Down’s syndrome; or genetic disorders (1)

Amniocentesis (1)

Plus up to 2 for: 15 weeks (1) A needle is inserted through the woman’s abdomen into the womb/uterus/amniotic sac (1) ultrasound scanning is used to position needle (1) A sample of the amniotic fluid in the sac is taken (1) and tested for chromosomal abnormalities/or alpha foeto-protein. (1)

Plus 1 mark for: spina bifida/neural tube defects; or Down’s syndrome; or genetic disorders e.g. CF (1)

The AFP test (1)

Plus 2 marks for any 2 from: around 16 weeks (1) a sample of the mother’s blood is taken (1) tested for level of alpha foeto-protein (1)

Plus 1 mark for: spina bifida/neural tube defects; or Down’s syndrome (1)

The Triple (screen) test (1)

for any 2 from: 15-18 weeks (1) a sample of the mother’s blood is taken (1) tested for AFP level(1) hCG (human chorionic gonadotrophin)(1) and oestriol (1).

Plus 1 mark for: spina bifida/neural tube defects; or Down’s syndrome (1)

An ultrasound scan (1)

Plus 2 marks for any 2 from: 20 weeks (1) high frequency sound waves (1) directed into womb from skin surface of abdomen (1) reflections received/analysed (1) to produce screen display of foetus (1)

Plus 1 mark for: spina bifida/neural tube defects; or heart abnormalities.

Cordocentesis/foetal blood sampling/percutaneous umbilical blood sampling/ PUBS (1) 18-20 weeks(1) needle passed into umbilical cord(1) for sample of baby's blood (1) positioned with the aid of an ultrasound scan (1)

8 marks

2 (c) Stretch and challenge and QWC apply to this question.

Banding

Band A: 7-8 marks: Two methods are identified and described accurately. At this level the ethical issues discussed will be well expressed and may reflect a high level of thought.

For example the view that attempts to reduce the incidence of disorders is a form of discrimination against people with disabilities, and that judgements about the quality of life of individuals can only be made by those individuals themselves. And/or a high level of detail about the methods. QWC must be of high quality showing the candidate's ability to structure answers and express ideas concisely and without error

Band B: 5-6 marks: Two methods are identified and described accurately. The level of discussion is less effective or hampered by technical error

Band C: 3-4 marks: Two methods are identified but there may be some inaccuracies in the descriptions of these methods. Answers may lack detail and there may be little discussion of ethical issues at the lower end of this band..

Band D: 1-2 marks: Only one method may be identified or if there are two methods there may be several inaccuracies and no attempt to discuss ethical issues.

0 marks: No response worthy of credit

Likely methods include:

1. Genetic counselling (1)

Description: Advises adults & couples believed to be carriers (1) of the probability of children having the disorder (1) encouraging them to consider alternatives e.g. adoption (1)

Discussion points: Not always effective (1) because people might not act on the advice/take a risk (1) and because genetic disorders are not always detected in carriers (1)

2. Sterilisation /birth control/contraception (1)

Description: Sealing/clamping Fallopian tubes (1) in women(1) or vasectomy (1) in men (1)

Discussion points: Highly effective (1) but difficult to reverse if person changes mind (1)

3. Pre-implantation genetic diagnosis (embryo screening) (1)

Description; Unfertilised ova are removed from a woman who wishes to have a child (1) and then artificially fertilised using sperm from the woman's partner/other sperm donor (1). Resulting embryos allowed to develop until a sample of genetic material can safely

be removed from them (1). This genetic material is then tested for the presence of genes likely to cause a genetic disorder (1). If these genes are found, the embryo is discarded (1). Embryos which remain after this screening process can then be implanted into the woman's womb, for normal processes of pregnancy and birth(1)
 Discussion points: Time-consuming (1) and expensive (1) but very effective (1) enables parents to have their own (biological) children without risk of inherited disorder (1) some ethical objections that rejected embryos are in effect potential children killed (1).

4. Abortion (1)

Description: Following positive ante-natal tests (1) parents may be offered termination of pregnancy (1) either by drugs (1) up to about 9 weeks (1) or vacuum suction/curettage (1) up to 15 weeks (1) or by drug-induced labour/evacuation (1)

Discussion points: Ethical objections to killing a viable foetus/child (1) but legal in cases of risk of severe impairment (1) illegal after 24th week of pregnancy (1) potentially very distressing to parent(s) (1) completely effective (1). 8 marks

- 3 (a) Poor lung function caused by thick sticky mucus (1) leading to risk of respiratory disease e.g. pneumonia (1) and fibrous cysts in the lungs (1)
 Digestive problems (1) because mucus obstructs pancreas (1) preventing enzymes reaching intestines (1) leading to poor weight gain (1)
 Sterility (1) in males (1).
 persistent coughing (1)
 excessive sweating (1)
 pale, oily smelly faeces(1)
 huge appetite but poor weight gain (1)
 growth stunted (1)
 salty skin (1) 4 marks

- 3 (b) Up to 3 marks for each treatment, of which 1 must be for specifying the treatment and 1 must be for specifying practitioner. Third mark for accurate detail. Likely answers:

Percussion (1) on the back (1) chest therapy(1) to dislodge mucus (1)
 carried out by physiotherapist (1)

Antibiotics (1) to control lung infections (1) prescribed by GP (1)
 Creon tablets (1) to aid digestion(1) prescribed by GP (1)

Provision of dietary advice (1) diet high in protein/calories/vitamins/pancreatic enzymes (1) given by a dietician (1) 6 marks

- 3 (c) CF is a genetic disorder(1) acquired at conception(1) carried on a recessive gene (1) the CFTR/cystic fibrosis transmembrane conductance regulator gene (1) on chromosome 7 (1) reference to ion transport (1)
 the recessive gene fails to regulate this properly, leading to excess NaCl in the body (1)
 This is only expressed if the person has a pair of recessive genes (1) so both parents have to be carriers of this gene (1) A carrier has no symptoms of the condition (1)
 The relevant gene pair in each carrier contains one dominant and one recessive gene (1) and there are 4 possible combinations of these (1) so there is a 25% chance of a child not carrying the gene, a 50% chance of being a carrier, and a 25% chance of the

child having CF (1) When one parent is a carrier, 50% chance of child being unaffected/
50% chance of child being a carrier (1)

Some of the above points can be made by using a diagram. 10 marks

- 4 (a) Delay in walking(1) climbing stairs on all fours(1) frequent falls/needs help to stand(1)
1 mark
- 4 (b) DMD is a sex-linked genetic disorder(1) Females have 2 X chromosomes(1) males have
1X and 1Y chromosome(1) so it is more common in boys because it is caused by the
presence of one recessive gene(1) which is carried on an X sex chromosome(1) so that
only one recessive gene is necessary for expression of the condition(1). Girls who have
two X sex chromosomes are less likely to develop the disease because the other X
chromosome dominates(1) they would have to receive two recessive genes one from
her mother and one from her father (1) and this is unlikely because the father would
have the condition himself(1) and reduced life span and/or other effects of DMD would
make it extremely rare for him to father children(1) So the female is most likely to be the
carrier(1) 6 marks
- 4 (c) Statementing 1 mark
- 4 (d) Award marks for technical knowledge about statementing or SEN provision IEP
(individual education plan) and DDA requirement to publish statements or policies
explaining their arrangements for the access and equal treatment of disabled pupils.

Both physical & psychological impact & their implications for the school should be
considered.

Mobility – Liable to falling and losing balance and eventually likely to need a wheelchair -
so access to mobility aids or wheelchair access around school

Personal care and Comfort – moving and handling/toileting. Consultation with
appropriate health care professionals physiotherapist, occupational therapist

Fatigue. Need to be aware that Mark is likely to suffer from fatigue which can affect his
behaviour as well as his ability to concentrate, learn and access a full curriculum. May
be absent more often which also affects access to curriculum and friendships

Learning disability for around a third of boys. Accurate assessment required. Possible
lack of expectation from staff.

Behavioural; Poor social skills/high stress levels/low self esteem. Frustration at not being
able to keep up with able-bodied peers. School should be aware of the potential for
behavioural problems and monitor this as well as making Mark feel included.
Potential for discrimination/bullying could be avoided by making the class aware of MD
but also making Mark feel an equal member of the class.

Banding (Stretch and Challenge)

Band A: 10-12 marks Answers that make appropriate, realistic and practical ways of accommodating a child with MD, showing a good technical knowledge of (1) physical and (2) psychological impact of MD on Mark and (3) special educational needs provision.

Band B: 7-9 marks Answers that include practical suggestions and some relevant technical detail or evaluation. The answer may not address all 3 areas described above

Band C: 4-6 marks Answers that contain some relevant information, but which are poorly focussed on the question or lack specific detail.

Band D: 1-3 marks Answers which show some basic knowledge but which are very brief or fail to address the question.

Quality of written communication applied to this question only.

Answers featuring repeated communication errors, but where meaning is still clear **or** answers that are rambling, long-winded and unfocussed – maximum 9 marks.

Answers featuring frequent errors in spelling/ sentence construction/ grammar so that meaning is obscured – maximum 6 marks

Answers not expressed in continuous prose, e.g. mainly in unexplained bullet points – maximum 5 marks 12 marks