Plenary: Study question mark scheme

This question can be used to assess understanding of this part of the specification:

*A2.4 How the use of different developments in technology supports the healthcare sector.*

It is a band-marked question.

AO1 = 3 marks

AO2 = 3 marks

AO3 = 3 marks

QWC = 3 marks

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| Band | Marks | Descriptor |
| 3 | 7–9 | AO3  The discussion of the impact of health applications is comprehensive, effective, and relevant. The answer includes a  wide-ranging discussion of the benefits to patients and healthcare professionals, and considers the potential drawbacks of the use of such technologies. Informed conclusions are made that are fully supported with rational and balanced judgements.  AO2  Relevant knowledge of health applications is applied to the given context.  AO1  Knowledge and understanding of the use of health applications is clear and fully accurate.  The answer demonstrates comprehensive breadth and depth of understanding and maintains a clear focus on the context of the question. |
| 2 | 4–6 | AO3  The discussion of the impact of health applications is largely effective, and mostly relevant. The answer includes a discussion of the benefits to patients and healthcare professionals and considers some of the potential drawbacks of the use of such technologies. Conclusions are made that are supported by judgements that consider most of the relevant arguments.  AO2  Mostly relevant knowledge of health applications is applied to the given context.  AO1  Knowledge and understanding of the use of health applications is mostly clear and generally accurate.  The answer demonstrates reasonable breadth and depth of understanding and maintains a focus on the context of the question |
| 1 | 1–3 | AO3  The discussion of the impact of health applications is in some parts effective and has some relevance to the context. The answer includes a brief discussion of the benefits to patients and healthcare professionals and may consider some of the potential drawbacks of the use of such technologies. Brief conclusions are made supported by judgements that consider only basic arguments.  AO2  Limited knowledge of health applications is applied to the given context.  AO1  Shows some knowledge and understanding of the use of health applications.  The answer demonstrates a limited breadth and/or depth of understanding, with inaccuracies or omissions, and has a limited focus on the context of the question. |
| 0 | 0 | No creditworthy material. |

## Indicative content

AO1: Knowledge and understanding of the developments in technology to support healthcare and the patient may include:

* promotes healthier choices by offering advice and support;
* raises awareness of the practical steps needed to treat/manage a condition;
* supports independent management of conditions;
* supports health professionals with ongoing monitoring of conditions;
* supports health teams to manage appointments;
* can save money/time e.g. by minimising the number of face-to-face appointments needed to manage a condition.

AO2: Application of knowledge and understanding of the developments in technology to support healthcare may include:

* provides motivation to patient by providing number of steps data/reduction in body mass;
* introduces competitive element through challenges (e.g. raising the number of steps per day) which support delivery of intended treatment;
* regular monitoring information on number of steps/heart rate/body mass is delivered directly to healthcare professionals;
* enables early identification of potential health issues e.g. heart condition, if heart rate data was abnormal;
* allows for personalisation of care; programmes can be devised for individuals based on existing step rate/heart rate/body mass;
* patients losing weight/increasing exercise at the expected rate would not need as many face-to-face appointments.

AO3: Discussion of how the use of different developments in technology support the healthcare sector may include:

**Positive effects:**

* patients are more likely to maintain a healthcare programme over time, and so will gain long-term health benefits, e.g. long-term weight loss;
* patients and healthcare professionals gain immediate feedback on the impact of a personalised treatment programme, which provides motivation/reassurance/confirmation of the appropriate nature of a plan;
* healthcare professionals gain rapid access to data on large numbers of individuals to plan for appropriate healthcare services in a locality;
* less time is needed with patients using the technology, enabling more patients to be seen/costs to be saved which could be used elsewhere.

**Negative effects:**

* over-reliance on the technology could lead to underlying conditions being missed;
* patients who enter false data may not have their conditions accurately diagnosed, which could lead to health conditions being missed by healthcare providers;
* practitioners may lack understanding of the limitations of the technology, therefore there may be a need to train/upskill the practitioner in understanding such limitations;
* fewer face-to-face appointments may detrimentally affect the quality of the relationship between healthcare practitioners and patients;
* any errors or failures in the technology could have significant effects on large numbers of patients;
* some patients may object to wearing a monitoring device;
* manual entry of body mass data can lead to false information being supplied;
* readings from monitoring equipment, e.g. heart rate monitor, may not be as accurate as those utilised by healthcare professionals.

**Possible conclusions:**

* Patients who are using the technology correctly are more likely to maintain a healthcare programme over time, and so will gain long-term health benefits, as well as saving the NHS time and money which can be spent on other patients. However,
* patients may input incorrect data/technology may not read accurately, which provides false data to the NHS. As the patient would not have lost weight/increased their fitness, their health may deteriorate and not be picked up by doctors due to fewer face-to-face appointments.

**QWC mark scheme**

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| Mark | Descriptor |
| 3 | The answer is clearly expressed and well-structured.  The rules of grammar are used with effective control of meaning overall.  A wide range of appropriate technical terms are used effectively. |
| 2 | The answer is generally clearly expressed and sufficiently structured. The rules of grammar are used with general control of meaning overall. A good range of appropriate technical terms are used effectively. |
| 1 | The answer lacks some clarity and is generally poorly structured. The rules of grammar are used with some control of meaning and any errors do not significantly hinder the overall meaning. A limited range of appropriate technical terms are used effectively. |
| 0 | There is no answer written or none of the material presented is creditworthy, or the answer does not reach the threshold performance level. The answer is fragmented and unstructured, with inappropriate use of technical terms. The errors in grammar severely hinder the overall meaning. |