OVERDOSE

Instructions:

Text A

Overdose: An overdose (OD) occurs when a toxic level of a drug, or a combination of drugs, overwhelms the body. It is possible to overdose on many types of drugs from opioids, to alcohol, to Tylenol or a combination thereof.

Opioid overdoses occur when there is such a high level of opioid in the system, or a combination of opioid and other substances, that the patient becomes unresponsive to stimulation or is unable to breath adequately. This occurs as a result of opioids becoming attached to specific receptors, which affect the body's drive to breathe. If breathing is affected for a protracted period of time, the blood's oxygen levels decrease and the lips and fingers to the patient may take on a blue colouring; this state is called cyanosis. If the oxygen starvation continues, vital organs, such as the heart and brain, will eventually stop and the patient will enter into a coma and, without intervention, will be at serious risk of death. It takes only between 3-5 minutes without breathing for brain damage to start to occur.

Fortunately, the process does not happen immediately, it takes between minutes and hours post-ingestion of toxic substances for breathing to be affected which means that there is almost always time for medical intervention following an overdose before a critical stage is reached.

Text B

Overdose resulting in admission

First steps:-

- Determine if OD is activating or deactivating the central nervous system (CNS) (i.e., causing cardiac arrhythmias, depressing myocardial function or provoking anion gap acidosis)
- If CNS is deactivated, ventilation must be provided in order to maintain patient's airway and short-acting sedatives should be used (e.g., midazolam or propofol)
- If CNS is activated, use benzodiazepines to sedate patient to avoid potentially violent behaviour, only use propofol if patient is particularly difficult to control

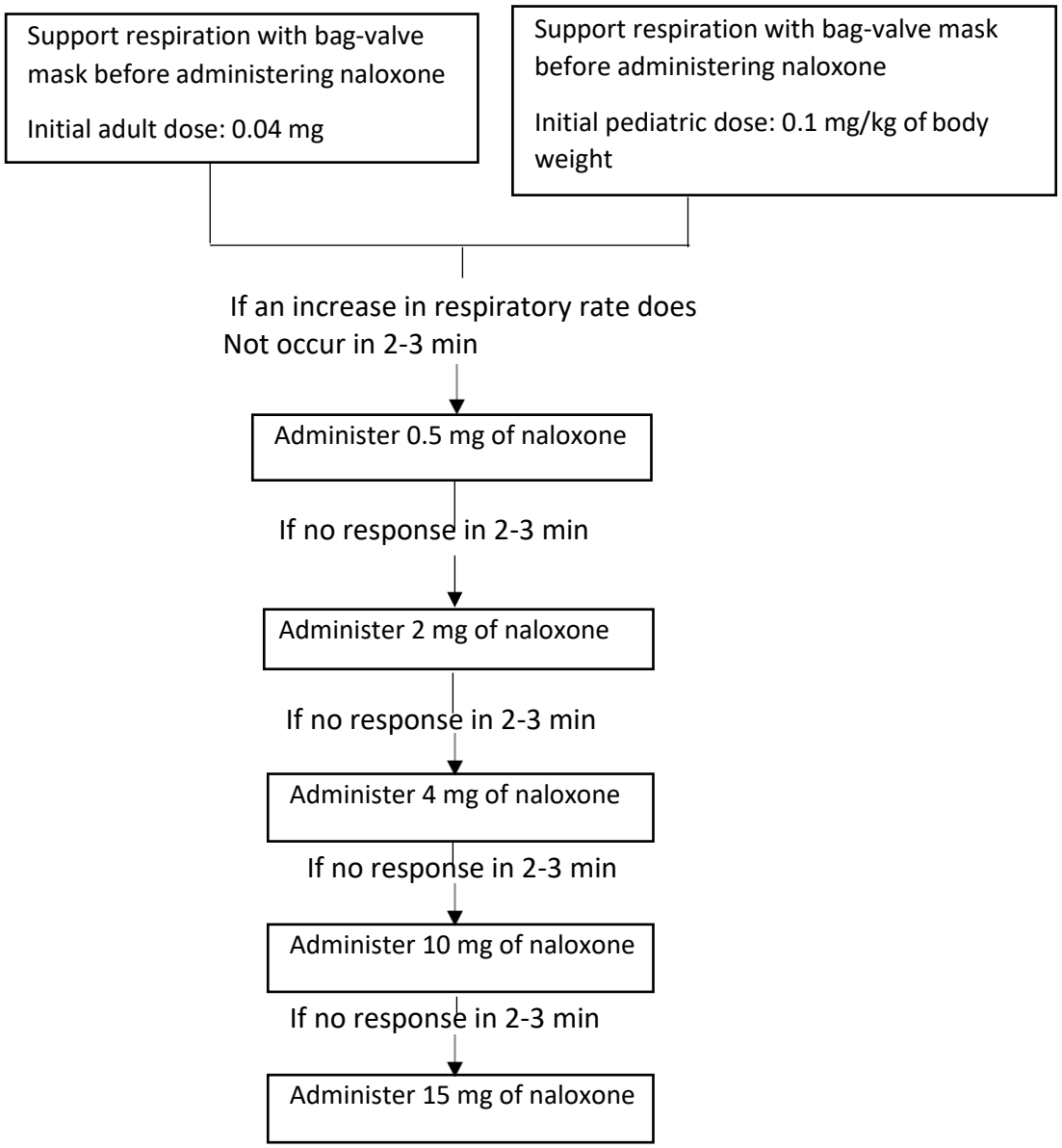
Treatment of arrhythmia:-

- Initially identify type of arrhythmia: narrow and fast, wide and fast or slow
- Determine whether brain or heart needs to be attended to first (narrow-fast rhythms indicate issues with the brain). If attending to brain, patient should be sedated.

- If patient presents with markedly widened QRS circuit, displaying wide and fast rhythms, a drug which blocks sodium channels should be suspected. Due to patient potentially being hypotensive and comatose, initial treatment should be sodium bicarbonate in boluses of one or two amps.
- If rhythms are slow, the patient's rate will need to be addressed (for example, with pacing). Myocardial function will also need to be addressed with the use of adrenergic vasopressors or high-dose insulin and glucose.

Text C

Naloxone Dosing



Text D

Managing the patient

Once patient's condition has been stabilised, inquire about use of all opioid analgesics, acetominophen and illegal substances and establish if patient has had contact with any individual receiving drug treatment for chronic pain or opioid dependence
Then perform physical examination, evaluating size and reactivity of pupils and respiratory effort. Also check for auscultatory findings indicative of pulmonary edema. The patient must then be undressed and searched thoroughly for fentanyl patches. Also, muscle groups should be palpitated by clinician checking firmness, swelling and tenderness for signs of compartment syndrome, direct measurements of compartment pressures should be undertaken.
Acetaminophen concentration should then be measured in all patients due to prevalence of diversion and misuse of acetaminophen-containing opioids

Nb: Toxicology screens, including qualitative analyses of urine for abuse of drugs, should seldom affect decisions over patient care and have a minor role in the immediate assessment and management of opioid intoxication. This is because, firstly, naxolone should never be withheld from a patient with apnea if qualitive results are not available; secondly, the management of the opioid overdose, no matter the responsible substance, varies very little; and, lastly, standard toxic screens only rarely provide useful clinical information.

Part A

For each question, 1-7, decide which text (A, B, C or D) the information comes from. You may use any letter more than once.

In which text can you find information about

1. How breathing rates affect medication levels? _____
2. Questions presenting patients should be asked? _____
3. The way heart rhythms may be affected by an overdose? _____
4. The effects of not treating an overdose? _____
5. Two ways in which the nervous system may be affected? _____
6. How opioid overdose are caused? _____

7. Medication levels in proportion to body weight? _____

Questions 8-14

Complete each of the sentences 8-14 with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

8. An eye exam should be conducted on patients who have overdosed on opioid in order to check the _____ of the pupils

9. The patient's breathing must be assisted with a _____ before naloxone is introduced

10. The body's respiration is adversely affected when opioids latch onto _____

11. A medical professional may determine whether to attend to the patient's _____ by checking the patients' heart rhythms

12. In order to check for _____ the patient's clothes must be removed.

13. _____ should be administered as the initial treatment for wide and fast rhythms.

14. Brain damage may occur in a patient who stops breathing for _____

Questions 15-20

Answer each of the questions, 15-20, with a word or short phrase from one of the texts. Each answer may include words, numbers or both.

15. What should the first dose of naloxone be?
    _____

16. Which state would a change of colour of parts of the patient's face and body indicate?
    _____

17. What is recommended to be used to sedate the patient in the case of a deactivated central nervous system?
    _____

18. Patients displaying which condition should never be refused naloxone?

    _____

19. Insulin and glucose are one of the methods which may be used to address what?

    _____

20. As the patient is undergoing palpitation, what should the clinician check for evidence of?

Part B

1. **How does the "full capacity protocol" help to reduce patient stays in hospitals?**
   (A) It relocates patients within the hospital
   (B) It allows patients to have weekend transfers
   (C) It assists patients in returning to their homes

Reducing patient Days

One of the inefficiencies which most affects hospitals is having patients remaining in health care facilities for longer than is necessary. There are a number of approaches which may be taken to improve performance in this area. One simple approach is allowing for patient transfer during the weekend, so that a patient who is ready to be transferred on a Saturday, for example, doesn't have to wait until a Monday until the transfer occurs. Another approach involves following a "full capacity protocol". This involves transferring patients who are medically ready for discharge from private beds to hall beds in order to discourage such patients from artificially extending their hospital stay. When this protocol has been used, the evidence has shown that medically well patients are much more proactive in terms of finding their way back home and, thus, being successfully discharged.

2. **The manual states that skills checks**
   (A) must be carried out for all health care professionals.
   (B) Train health care workers in important skills.
   (C) Vary depending on the skill being checked.

Skills checks for social care

In order to work safely and satisfy quality standards, it matters that, as heath care professionals, we are able to communicate and use information accurately and effectively. It is for this reason that communication and numerical skills are of importance. The skills checks are designed to make this clear to staff as well as checking that workers have the necessary skills to carry out the tasks they are being asked to perform.

This skills checks involve a short paper-based, learning activity which will be a dialogue between you and the worker. In total, it ought to last between 10-15 minutes. The checks are specialised in accordance with the job role and the specific skill which is being assessed and are suitable for both UK and overseas workers.

3. **The main purpose of this extract is to**
   (A) Explain the role of safeguarding Adult Reviews.
   (B) Specify which bodies may hold workers to account
   (C) Show how workers can learn more about legal processes.

Continuous Learning

In the case of serious harm or death taking place within a social care setting, it is important that lessons are learned in order that preventative action may be taken in order to avoid such instances taking place in the future. This is the purpose of safeguarding Adult Reviews (SARs)
What SARs are not, however, is a process which is designed to hold any individual or organisation to account, this process is served via disciplinary procedures, criminal procedures, employment law and other professional bodies.
In order to maintain a focus on learning, it is important to

- Make it clear how organisation factors can cause incidents
- Show that head management are committed to being honest when commissioning SARs.
- Demonstrate transparency in terms to showing how SARs connect with disciplinary procedures

4. **According to the email, changes as a result of GP+ involve**
   (A) Patients' ability to book telephone appointments
   (B) Young people receiving same day after school appointments
   (C) Patients being able to be attend weekend evening appointments

To: Affiliated practitioners
Subject: Continued roll-out of GP+ services

Dear practitioner,
As a participant in the GP+ service, you will need to make your facility available for appointments during evenings and weekends. As from 3rd December, patients will need to be able to book their face-to-face or telephone appointments from 6-9pm on weekdays and 9am-1pm on weekends.
Routine and same day appointments will need to be offered a standard and provision will need to be made for same day appointments from 6-9pm for children aged 0-16 who require treatment outside of school hours. Patients should be able to book these appointments using their normal practice
I would like to thank you for participating in this service and providing patients with greater opportunities to attend appointments and receive required treatment.

5. **From this notice we learn that**
   (A) Mistakes administering nerve blocks occur frequently
   (B) Healthcare workers administering nerve blocks need to be checked
   (C) Errors in administering nerve blocks can lead to longer hospital says

Stop before you block

Unintended, wrong-sided, peripheral nerve blocks do not happen often, however, they can have serious consequences, such as causing nerve damage and a leading to a toxic effect from local anaesthetic. Discharge dates may also be delayed as a result of the patient's mobility and dexterity being reduced. The worst-case scenario is that the wrong- sided nerve block may lead to wrong-sided surgery.
In November 2010, 67 unintended wrong-sided nerve blocks were reported nationally over a 15-month period. The aim is to reduce this number to zero as quickly as possible. In order to ensure mistakes such as these are not repeated, there must be pause before the administration of the nerve block during which the anaesthetist and anaesthetic assistant are required to double check both:

- The surgical site marking
- The site and side of the block

6. **The guidelines provide information about**
   (A) The sorts of signs and symptoms associated with incontinence
   (B) In which cases a physical examination can be performed
   (C) The causes and the types of incontinence

Continence Assessment

Incontinence has a number of causes and varieties. If a patient is seeking advice in relation to continence, then the exact nature of the issue needs to be determined. An assessment of continence aids in determining the nature of the problem and which kind of treatment is required. The details of the signs and symptoms displayed by the patient will be included and a physical examination may also be indicated. Before a physical examination can be performed, the consent of the patient must be acquired. Nevertheless, if there is an issue with attaining such consent, due to some incapacity on behalf of the patient, then intervention should only be taken if it can be demonstrated that it is being done in the patient's best interest.

Part C

Text 1: Isolating illness

Travelling to remote tropical islands is an activity which has the ability to provide something beyond pleasure, excitement and beauty; from Darwin´s expeditions to the Galapagos all the way to the present day, it is also something which can help us better understand the world around us. Whereas in Darwin's case he was discovering the fundamental principles of evolution, medical researchers working on the Bijagos Islands, an archipelago off the coast of Guinea-Bissau in West Africa, are using the isolation of their surroundings in order to conduct investigations into specific diseases in order to study how they have come about and how they might be eradicated.

Why the Bijagos islands? You might ask. Well, two reasons: firstly, there is the fact of their remoteness which allows researchers to treat the islands as a natural laboratory of sorts in the sense that there is very little influence and interference from the outside world. As a result, experiments conducted there are unlikely to be tainted by outside factors. Also, although the water barrier between the islands and the mainland makes it difficult for people to move in and out, the islands themselves are close enough together so that researches are easily able to make their way around and between the islands. Finally, the Bijagos, despite their paradisal appearance, are actually affected by a number of serious diseases, which have led the life-expectancy on the island to be as low as 60, over 10 years lower than the global average. Consequently, there is much for medical researchers to be doing on the islands.

The two diseases which are among the most harmful on the island are trachoma and malaria. Trachoma, researched on the island by the London School of Hygiene and Tropical Medicine, is an infectious disease which turns the eyelashes inward and affects almost 2 million people worldwide. **It** is the world's largest cause of preventable blindness. It is spread via contaminated hands, clothing or infected flies coming into contact with the eyes. The contamination emanates from a form of chlamydia bacterium which is apt to spread in crowded areas with poor sanitation. It is present in over 40 countries and there were villages in the Bijagos where every single child had been infected.

Dr Anna Last thoroughly researched the disease before administering antibiotics to the local population. Eyelid swabs were carried out in order to try to detect the disease at an early stage and genetic studies were also conducted in order to try to identify the nature of the infection which was present. The goal was to both eliminate the disease and to work out exactly what was causing it so that future outbreaks may be prevented. The results were **staggering**, when Dr Last first started working in the Bijagos, 25% of the island population was affected, that number has now been reduced to 0.3%. According to Dr Last, not only has this had clear benefits for the people of the Bijagos, the research conducted could also be used to help benefit sufferers of trachoma around the world.

Malaria is the disease to which the research team have now turned their attention. A much more commonly known disease, this is spread when female mosquitoes which are infected with a parasite bite human beings. Symptoms initially include fevers and headaches and quickly become more severe with around half a million people dying from the disease on an annual basis. On the Bijagos, up to a quarter of the people on the islands are infected which means that the mosquitoes there are uncommonly adept at transmitting the disease.

Researchers have discovered that the mosquitoes in the area are particularly resistant to insecticides meaning that a number of the traditional methods for containing malaria, such as using bed nets and spraying houses with insecticide, may well prove ineffective. Alternative methods which researchers are trialling involve using a new drug which is designed to shorten the lifespan of the mosquito and thus reduce its effectiveness in spreading the disease. Researchers will set up the experiment where there will be a part of the islands which uses traditional methods, another part which uses the alternative approaches and a control area where no interventions will be taken. The results of the research are eagerly awaited as we see whether they will be anything like as successful as they were in relation to trachoma.

Even if this proves not to be the case, the experiments beings conducted are providing a rich source of new information about a disease which has blighted so many communities from so many parts of the world. Being able to learn more about the disease is vital in order to allow medical professionals to combat it more successfully in the future.

Questions 7-14

7. **In the first paragraph, the writer makes a comparison between Darwin and the medical researchers because**
   (A) Of the close proximity of the Galapagos and Bijagos islands.
   (B) They were both involved in studies relating to evolution.
   (C) They were both trying to discover new information.
   (D) Both were engaged in medical pursuits.

8. **From paragraph 2 we learn that**
   (A) It is easy for researches to reach the islands from the mainland.
   (B) Those on the Bijagos don't live as long as most people.
   (C) The Bijagos islands are far apart from each other.
   (D) No-one from the mainland visits the islands.

9. **In the third paragraph, what does the word "it" refer to?**
   (A) The chlamydia bacterium
   (B) Preventable blindness
   (C) Poor sanitation
   (D) Trachoma

10. In the fourth paragraph, what's the meaning of "staggering"?

(A) Uncertain
(B) Confusing
(C) Surprising
(D) Predictable

11. What does Dr Last believe could be achieved in the future?

(A) The application of conducted research in other countries.
(B) Greater benefits for the people of the Bijagos.
(C) More research into the nature of trachoma.
(D) The global eradication of trachoma.

12. What do we learn in paragraph 5 that is unique about malaria on the Bijagos?

(A) The symptoms of the virus.
(B) The manner in which the virus is spread.
(C) The number of people who die from the virus.
(D) The proportion of people who have been infected.

13. In paragraph 6 the writer states that in the Bijagos

(A) There is great interest over what the results will reveal.
(B) Alternative approaches will be used across the whole area.
(C) Traditional approaches to preventing malaria are ineffective.
(D) The research team will tackle malaria as successfully as they did trachoma.

14. In the final paragraph the writer argues that in the future

(A) Medical Professionals will be able to fight malaria more successfully.
(B) Discovering more about malaria will be of great importance.
(C) More experiments should be conducted into malaria.
(D) Malaria will continue to affect global communities.

Text 2: Illness anxiety disorder

Illness anxiety disorder, more commonly known as hypochondria, is a condition which has existed as far back as the civilisations of Ancient Greece. Yet it is still a condition which is often misunderstood by the general public and can prove to be very difficult to deal with for both those afflicted and the medical professionals who are charged with managing the afflicted.

Those suffering with the disorder have an inherent belief that certain physical symptoms they possess are indicative of a serious illness even when medical evidence suggests this not to be the case. The discrepancy between the sufferer's belief and the evidence provided often causes distress with patients feeling that their concerns are going unaddressed and, thus, demands are made of doctors for more tests and further treatment, which doctors, for reasons of cost, efficacy and time, may well advise against. It can seem counter-intuitive that

doctors are essentially put in the awkward position of being resented for not providing bad news.

It is important, however, to be clear as to exactly what illness anxiety disorder consists of. According to Dr John Barksdale, a vice-chair for Psychiatric Research at Boston Women´s Hospital, the term "hypochondria" is often misused. He draws a distinction between those who are medically concerned patients who can be reassured with routine testing and reassuring words, or those who request an appointment and leave **elated** once they learn that a groin injury is not a sign of testicular cancer, and genuine hypochondriacs who behave rather differently. "There are many who have unexplained symptoms and who react well to reassurance," says Barksdale, "hypochondriacs, on the other hand, resist reassurance." As a result, suffering from hypochondria is not just about being one of what is often dismissively referred to as the "worried well", it is something deeper which may well have a psychological root.

Many physicians now see the condition as a type of anxiety disorder and doctors and researchers are trying to come up with ways to help treat a condition which is estimated to affect between 4-6% of primary care patients. Part of this treatment involves patient counselling, team-based care and, in some cases, medication for the anxiety which is causing the psychological condition, rather than medication for the conditions the patients might fear they have. The problem persists, however, as helping those with the disorder recognise that they have it is not an easy thing to achieve. Barksdale refers to the challenges of modern life and how they may specifically affect those suffering with the condition, referring to initiatives such as "disease awareness month" and magazine adverts warning about diseases and the need for regular check-ups. He also refers to the internet as being a minefield in relation to the information which is contained relating to medical disasters and all sorts of diseases. He describes patients who look up their symptoms and find the worst potential diagnosis thereby risking that they end up being confirmed of the belief that they are suffering from a serious illness.

Nevertheless, according to Dr Bower, an MD at Sandtown Michigan, more can be done to not necessarily cure patients of their hypochondria but to help them manage their lives. Having regular face-to-face and phone appointments with such patients can help them feel as if they are being supported and can prevent them from seeking alternative medical care which may prove to be more expensive or invasive, it also ensures that doctors are able to monitor patients closely should any genuine illnesses develop.

Patients also need to be helped to "reframe their condition"; namely, doctors need to be able to help patients to start to think about their condition differently. Bower refers to helping patients to be able to see that what they're suffering with is not "a hardware problem but a software issue, a perceptual programming problem". If patients can be made aware of **this,** doctors stand a better chance of encouraging them to start to confront the genuine issues that they face.

Barksdale also refers to positive developments within the realm of cognitive behavioural therapy (CBT), where patients are helped to become aware of their conditions and are aided in terms of developing strategies to deal with the underlying anxiety which has caused them. Ultimately, however, Bower argues that the most important thing that can be done for such patients is being as available as possible to lend them an ear and to let them know that you take the state of their health seriously. "Everyone has some type of health problem," says Bower, "and the better you know your patients, the better you can respond."

15. In the first paragraph we learn that illness anxiety disorder

(A) Was common in Ancient Greece.
(B) Is usually recognised by a different name.
(C) Is not understood by medical professionals.
(D) Is difficult for medical professionals to diagnose.

16. The main point the writer is making in paragraph 2 is that patients with illness anxiety disorder

(A) Prefer to receive bad news.
(B) Are likely to have their concerns unaddressed.
(C) Would benefit from more tests and greater treatment.
(D) Are influenced more by their feelings than by medical results.

17. What is the meaning of the word "elated" from paragraph 3?

(A) Disappointed
(B) Concerned
(C) Excited
(D) Happy

18. According to Dr Barksdale, in what way are hypochondriacs different to other patients?

(A) They don't want to be reassured.
(B) They are not medically concerned.
(C) They have unexplained symptoms.
(D) They are referred to as the "worried well".

19. .Which of these statements best sum up Dr Barksdale's opinion in paragraph 4?

(A) There is greater focus on and exposure to medical matters than previously.
(B) The internet is helping patients to accurately diagnose their illnesses.
(C) There is more knowledge about disease now than in the past.
(D) Modern life is more difficult than the in past.

20. From paragraph 5, we can see that Dr Bower believes that

(A) Doctors should expect hypochondriacs to develop genuine illnesses.
(B) Patients should be prevented from seeking alternative medical care.
(C) Doctors should have regular contact with hypochondriacs.
(D) Patients cannot be cured of their hypochondria.

21. What does "this" refer to in paragraph 6?

(A) The patient's "software issue".
(B) The patient's "hardware problem".
(C) The patient's misunderstanding of their condition.

(D) The fact that the patient is suffering from a condition.

22. In the final paragraph, the quotation from Dr Bower is used to suggest that

(A) Hypochondriacs have good reason to be concerned about illness.

(B) Hypochondriacs should be treated like other patients.

(C) There are many illnesses which remain untreated.

(D) We should all be visiting the doctor more often.