

## **READING SUB-TEST : PART A**

- Look at the four texts, A-D, in the separate Text Booklet.
- For each question, 1-20, look through the texts, A-D, to find the relevant information.
- Write your answers on the spaces provided in this Question Paper.
- Answer all the questions within the 15-minute time limit.
- Your answers should be correctly spelt.

## **PART A -TEXT BOOKLET – INTRAVENOUS CANNULATION**

### **Text A**

#### **Overview**

Intravenous (IV) cannulation is a technique in which a cannula placed inside a vein to provide venous access.

#### **Indications**

Indications for IV cannulation include the following

- repeated blood sampling
- fluid administration
- medications administration
- chemotherapy administration
- nutritional support
- blood or blood products administration
- administration of radiologic contrast agents for computed tomography(CT), magnetic resonance imaging (MRI), or nuclear imaging

#### **Contraindications**

No absolute contraindications to IV cannulation exist but avoid injured, infected, or burned extremities if possible. Some vesicant and irritant infusions (pH <5, pH > 9, or osmolarity >600 mOsm/L) can cause tissue necrosis they leak into the tissue, including sclerosing solutions, some chemotherapeutic agents, and vasopressors. These fluids are more safely infused into a central vein. They should only be given through a peripheral vein in emergency situations or when central line is not readily available

**Text B**

Technique	Rationale
After skin preparation, use a tourniquet increase the venous pressure and pull skin taut in opposite direction of needle insertion. Avoid excessive pressure to cannulation site to prevent fattening of vessel.	Increases surface tension so facilitates smoother incision of skin with less surface area contacting cutting edge of needle.
For an easily palpated vessel, use approximately 25 <sup>0</sup> angle with the bevel up.	Less steep angles increase the risk of needle cutting along surface of vessel. Steeper angles increase risk of perforating the back wall of the vessel.
Once vessel has been penetrated <ul style="list-style-type: none"><li>• Advance the needle slowly with the cutting edge facing the top of the vessel and do not rotate the axis</li></ul>	Any manipulation may traumatise the intima of the vessel. The use of a back-eye needle will eliminate the need to rotate the needle due to poor flows.
Tape the needle at the same angle or one similar to the angle of insertion	Pressing the needle shaft against the skin moves the needle tip from the desired position within the vessel.
Remove needle at angle similar to angle of insertion and never apply pressure before the needle is completely out.	Avoid trauma to the intima by dragging the cutting edge along it.

**Text C**

Size	Flow rate	Recommended use
14G	300ml/min	For patients in shock, eg. GI bleeds or trauma. Also for peripheral administration of amiodarone, dopamine.
16G	200ml/min	
18G	90ml/min	For blood transfusions or high volume infusions.
20G	61 ml/min	Multi-purpose IV; for medications, hydration and day-to-day therapies.
22G	36 ml/min	For patients with small veins; elderly or paediatric patients. Only for use with saline, standard antibiotics and heparin.

**Text D**

Phlebitis is associated with IV therapy, and can occur in as many as 70% of patients. It is defined as the acute inflammation of the internal lining of the vein. Phlebitis is characterised by pain and tenderness along the course of the vein, redness and swelling and warmth can be felt at the insertion site.

**Phlebitis Scale**

Grade	Clinical Criteria
0	No symptoms at access site
1	Erythema
2	As 1, plus pain
3	As 2, plus streak formation and a palpable venous cord
4	As 3 with a palpable venous cord > 1 inch in length and purulent drainage

**Prevention measures include:**

- Adhering to aseptic technique during insertion, dressing changes, mixing or drawing up of solutions or medications, accessing ports or hubs on IV equipment.
- Cannula site rotation.
- Using the smallest gauge cannula in the largest vein.
- Adequate securement of the IV device.
- Close and regular monitoring of the IV site
- Patient education of the signs and symptoms of phlebitis.
- Following guidelines on dilution of solutions to prevent particulate matter and to ensure that the medication or solution doesn't have too high or too low a pH

**PART A -QUESTIONS****Questions 1-7**

For each of the questions, 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. when it's better not to insert an IV cannula?
2. a frequent complication associated with cannula use?
3. how to decide which is the most appropriate cannula?
4. ways of keeping a cannula site healthy?
5. the correct way to insert a cannula?
6. using cannulas to help with diagnosis?
7. a ranking system to help judge the seriousness of a problem?

### **Questions 8-14**

Answer each of the questions, 8-14, with a word or short phrase from one of the texts. Each answer may include words, number of the both. Your answers should be correctly spelled.

8. What size cannula should you use on children?
9. What is the best size cannula to use for routine treatments?
10. What can happen if you use excessive pressure when inserting the needle?
11. What size cannula should you use to administer a large quantity of fluids?
12. What kind of needle should you choose to ensure you don't have to twist it after insertion?
13. What part of the blood vessel is at risk of damage while you are taking the needle out?
14. What part of the vein is affected in phlebitis?

### **Questions 15-20**

Complete each of the sentences, 15- 20, with a word or short phrase from one of the texts. Each answer may include words, number or both. Your answers should be correctly spelled

### **Inserting the cannula**

15. When preparing to insert a cannula, clean the skin and then apply a

\_\_\_\_\_

16. Inserting the needle too steeply can result in \_\_\_\_\_ the underside of the vein.

17. When you are pushing the needle into the vein, keep the \_\_\_\_\_ face up

18. When securing the IV device, make sure the \_\_\_\_\_ of the needle remains as it was when you inserted it

### **Assessing and avoiding complications**

19. If the patient's only symptom is \_\_\_\_\_, then they have grade 1 phlebitis

20. Make sure that there is no \_\_\_\_\_ in IV solutions that you make up

21. Make sure you stick to \_\_\_\_\_ working practices when handling IV equipment

22. The presence of a thickened vein together with \_\_\_\_\_ tells you the patient has grade 4 phlebitis

**END OF PART A THIS TEXT BOOKLET WILL BE COLLECTED**

### **READING SUB-TEST : PART B**

In this part of the test, there are six short extracts relating to the work of health professionals .

For questions **1-6**, choose the answer (A, B or C) which you think fits best according to the text. Write your answers on the separate Answer Sheet

#### **Questions 1-6**

1. What was the reason for recent changes in healthcare?

A. Reluctant to act friendly by doctors with patients.

B. Nurse practitioners are acquiring high-positions, equal to doctors, because for extra qualifications.

C. Lack of sufficient doctors in primary Healthcare hospitals

### **Changing the healthcare Landscape?**

Most of us have memories of visiting the family doctor when we were sick as children. This friendly and familiar figure checked your sore ears, listened to your heartbeat and gave you jellybeans at the end of your visit

Unfortunately, the doctor shortage means it is getting harder to see a doctor, any doctor when you really need them, especially if you live in a rural or regional area.

But recent Medicare changes could bring about a change in our healthcare landscape with growing numbers of nurse practitioners likely to be working in primary and community care.

Unlike the practice nurse at your local GP surgery or a registered nurse that you may come across in hospital, nurse practitioners have extra qualifications allowing them to provide some of the care that previously only doctors could offer.

2. The information in these notes is intended to

- A. assist in the development of suitable procedures to this end.
- B. be conscious in operating with electrical equipment.
- C. project the lack of strict guidelines on operational handlings.

### **Hazards of Medical Electrical Equipment**

Medical electrical equipment can present a range of hazards to the patient, the user, or to service personnel. Many such hazards are common to many or all types of medical electrical equipment, whilst others are peculiar to particular categories of equipment.

The hazard presented by electricity exists in all cases where medical electrical equipment is used, and there is therefore both a moral and legal obligation to take measures to minimize the risk. Because there is currently

very little official guidance on precisely what measures should place in to ac respect to equipment, user organisations have developed procedures based on their own experience and risk assessments

**3. What does this extract from a handbook tell us about Microvascular Bleeding?**

- A. Transfusion of blood components performed at the time of an operation
- B. Hemostatic function can minimize the process of excessive bleeding.
- C. Use of potent platelet inhibitors to stop blood transfusion.

### **Microvascular Bleeding (MVB)**

Patients undergoing cardiac surgery with cardiopulmonary bypass are at increased risk for microvascular bleeding that requires perioperative transfusion of blood components. Platelet-related defects have been shown to be the most important hemostatic abnormality in this setting. The exact association between preoperative use of potent platelet inhibitors and either bleeding or transfusion in patients undergoing cardiac surgical procedures is currently being defined.

Laboratory evaluation of platelets and coagulation factors can facilitate the optimal administration of pharmacologic and transfusion-based therapy. However, their turnaround time makes laboratory-based methods impractical for concurrent management of surgical patients, which has led many investigators to study the role of point-of-care coagulation tests in this setting. Use of point-of-care tests of hemostatic function can optimize the management of excessive bleeding and reduce transfusion.

**4. Why Clinical Medication Review gained prominence in recent times?**

- A. Inability to accommodate patients in hospitals
- B. To provide patient safety and for better health outcomes
- C. Inappropriate medications are reflecting in hospital admissions



## **Manual extract : Clinical Medication Review**

Medication is by far the most common form of medical intervention. Four out of five people over 75 years take a prescription medicine and 36% are taking four or more drugs. However, we also know that up to 50% of drugs are not taken as prescribed, 2, 3, many drugs in common use can cause problems and that adverse reactions to medicines are implicated in 5-17% of hospital admissions. This leads to difficult decisions, particularly with the frail elderly, whether to initiate or discontinue medication.

Medication review is recognized as a cornerstone of medicines preventing unnecessary ill health and avoiding waste. Involving patients in prescribing decisions and supporting them in taking their medicines is a key part of improving patient safety, health outcomes and satisfaction with clinical care.

### **5. Why Are Case-Control Studies Used?**

- A. To evaluate a conceivable relationship between an introduction and result.
- B. If the result of intrigue is uncommon or sets aside a long opportunity to happen.
- C. To alleviate recall and observation bias.

### **Case-Control Studies**

Case-control studies are time-efficient and less costly than RCTs, particularly when the outcome of interest is rare or takes a long time to occur, because the cases are identified at study onset and the outcomes have already occurred with no need for a long-term follow up. The case-control design is useful in exploratory studies to assess a possible association between an exposure and outcome. Nested case-control studies are less expensive than full cohort studies because the exposure is only assessed for the cases and for the selected controls, not for the full cohort.

Case-control studies are retrospective and data quality must be carefully evaluated to avoid bias. For instance, because individuals included in the study and evaluators need to consider exposures and outcomes that happened in the past, these studies may be subject to recall bias and observer bias.

6. Why does a patient cannot find the one who have checked his case file?

- A. Healthcare is not having good security approach.
- B. Ethical privacy will make its prominence here.
- C. It is the policy of the Digital Health Research Centre.

### **Lax security culture in hospitals**

A patient can look up My Health Record to check a log of which healthcare providers have opened their record, but won't be able to identify the individual health practitioner.

When asked who records which individual doctors have accessed it, the ADHA declined to disclose this for security reasons".

"When you have logins and you don't change them, and you have shared passwords, then yes it's difficult to tell who did what because your audit logs are going to have whoever was supposedly logged on," said Professor Trish Williams, Co-director of Flinders Digital Health Research Centre.

She said lax practices develop in hospitals due to time pressures and suggested the solution was to make logging on and off easier in the hospital environment.

"One of the reasons why healthcare has been so bad at security has been the workflow,. Professor Williams said.

## READING SUB-TEST : PART C

In this part of the test, there are two texts about different aspects of healthcare. For questions 7-22, choose the answer (A, B, C or D) which you think fits best according to the text. Write your answers on the separate Answer Sheet

### Part C -Text 1

#### Depression

It was an ordinary day: me and my sister watching TV. Between endless series of horrifying news, we see one about the increasing number of both men and women who seek medical assistance and medication for depression. The same report informed my sister and I about the seriousness of the consequences of untreated depression, among these is suicide.

A couple years ago was the moment when I first saw news about depression that triggered my attention. I have experienced quite a few moments when I felt sad and needed to be alone. The constant invasion in the media about depression and how far things can get if not treated, taking into consideration my moments of weakness, have made me to even wonder myself: "What if my moments of sadness are signs of depression? Shall I look for help?

Mental states characterized by feelings of sadness, hopelessness, and loss of interest. This is how depression is defined in the Oxford Dictionary of Sociology. What is more interesting is the fact that depression is considered to be evolved from melancholia. People feel melancholic because they are homesick or miss a friend.

It is normal to have moments when we miss someone so much that it hurts and we are sad because we cannot be with that person at that very precise moment, so we might wish to have some time for us, alone, to recover. But from experiencing this state of sadness, for the moment to give it a name, depression, there is only one small step in the eyes of the specialists.

When I got in contact with the university life and found out more about the society, as well as read Mills book *The Sociological Imagination*, I further realized that the problems an individual experiences are issues with which the society confronts to and the dimension is much greater than believed. Therefore, my occasional sadness would probably be called, by specialists, mild depression, but this problem I am confronting sometimes has reached within the society a dimension that challenges me to further investigate the issue of depression.

The pharmaceutical industry has played an important role in the treatment of depression because these companies came up with an entire range of treatments meant to treat depression. However, this story with the pharmaceutical companies as the saviors of the emotional well-being of the people is quite an ambiguous one because it is hard to tell whether at first people experienced depression and then the drugs were invented, or the pharmaceutical industry made the drugs for the emotional recovering from sadness and renamed the state of sadness as depression, and then people started to use them.

In this journal I have chosen to focus on the subject of depression because I feel it is a personal topic. Experiencing minor episodes of depression myself. I would very much like to seek the history of depression and reveal whether depression is socially constructed or not, and acknowledge the true influence of the pharmaceutical industry in the treatment of depression.

For a long period of time, the concepts of illness and social reality were regarded as separate. In the 1960s, Szasz argued that the psychiatric perceptions about disease are actually social attributes to deviant behaviors because they are not built on an 'organic base. In 1970, two perspectives were brought. On the one hand, Eliot Freidson made a distinction between the social constructed illness and the biological constructed illness and observed how particular problems or conditions of the human beings come to be defined as illnesses and bring a Supplementary gain to the medical institutions and representatives. On the other hand, Foucault stated that people's behaviors, personal experiences

and shape of identity can be influenced by the medical discourse. A few years after Friedson and Foucault's appreciations, Eisenberg claimed that there should be a differentiation between cultural and biological illness.

In the current society, medical sociologists include some forms of behavior and experiences of the people as medical conditions. **This** is why the illness is shaped by a wide range of phenomena such as culture, knowledge, social contact and power, culture has an important meaning because it determines the way in which the illness is experienced, the reaction of the society towards illness, as well as the measures taken to cope with the illness. A very controversial and well known topic of the present society has been through a complicated process in which culture has played an important role is depression.

### **Part C -Text 1: Questions 7-14**

7. What made the author to think "Shall I look for help" in the second paragraph?

- A. He has lost someone, who is very lovable with him
- B. Sudden outbreak of news in Media about depression
- C. Author's perception about his state of mental condition
- D. While seeing a article in a newspaper regarding suicidal cases increased abruptly in the last few years

8. What led the author to investigate about depression eagerly?

- A. Melancholia is considered to be a source of depression
- B. Because of his incidental sadness confronts within the society
- C. To find out illness is made by a wide range of phenomena
- D. To disprove Foucault statements on depression.

9. The author suggests that problems as individual facing issues are confronting with society has\_\_\_\_\_

- A. wide range of dimensions to believe
- B. has perspectives that built on an organic base

- C. acknowledged the true influence of the pharmaceutical industry
- D. supplementary gain to the medical institutions

**10.** The word **Ambiguous** in the fifth paragraph implies that the role played by pharmaceutical companies as the saviors is

- A. underpinned
- B. explicit
- C. dishonest
- D. obscure

**11.** What made the author to feel depression as personal topic?

- A. The role played by the Pharmaceutical companies as the saviors
- B. He himself has faced mild signs of depression
- C. To deter the opinion of differentiation between cultural and biological illness.
- D. An inspiration brought by reading the Mills Book

**12.** Authors view on Mental illness is

- A. the concepts of illness and social reality were regarded as same
- B. it is shaped by a wide range of phenomena
- C. culture alone influences a person mental condition
- D. there will be no evidence of social construction

**13.** How Szasz observations are different from others?

- A. Latter found them to be false
- B. Former observations are not Organic based
- C. Focused mainly on cultural observations
- D. Confined to behavioural features

**14.** What does the word this in the final paragraph referring?

- A. Cultural process
- B. Behaviours and experiences
- C. Mental illness
- D. Medical conditions

## Part C -Text 2

### **Alternative menopause therapies not best choice?**

Too many Australian women are using treatments for menopause symptoms that don't work, the authors of a new study say. It's estimated nearly 500.000 women a month are using these medicines to control so-called vasomotor symptoms like night sweats, vaginal dryness and hot flushes says Dr Roisin Worsley, from Monash University's School of Public Health and Preventive Medicine. While some complementary therapies for menopause problems have not been as well researched as others, black cohosh and phytoestrogens at least have been the subject of multiple high quality studies known as randomised controlled trials and meta analyses, Worsley says. "There really was no evidence of any benefit".

Most alternative menopause therapies may also cause shorter term side effects including nausea, headache and upset stomach. Some known side effects of ginseng include hypertension, diarrhoea and sleeplessness. "It will reduce hot flushes by 80 per cent in most people", for instance, Worsley says. "It's really amazing how quickly it works as well". But women and doctors alike were scared off HRT after research findings released in 2002 suggested it increased the risk of breast cancer. The fear was understandable because "it was very scary evidence at the time". But the original analysis of study data was misleading because it focused on older women (average age 69) and those taking hormones for longer periods. This is because the original study set out to investigate a different question: whether oestrogen therapy could help prevent heart disease and dementia in older women. While the analysis showed HRT was linked with a raised risk of breast cancer, blood clots and strokes, "these were older women, who had already developed some forms of disease anyway".

Now the data has been reanalysed to work out the effect of the hormones on women who "actually want to use hormone therapy for their hot

flushes". These are younger women (usually in their early 50s) who use hormones for a shorter period of time - and the conclusions are offbeat. "The reanalysis of the old data suggests the benefits of hormone therapy [for menopause symptoms) outweigh the risks for short-term use in healthy women". Current guidelines say women should take the lowest dose of HRT for the shortest amount of time possible, but can use it for up to five years. However, all women should discuss their individual risk and personal preference with their doctor.

Phytoestrogens are compounds from plants that mimic the action of the human hormone oestrogen. Taken either as food supplements or in concentrated tablet form, they are the most commonly used complementary and alternative medicine for menopausal symptoms. "We always thought they would help with hot flushes but unfortunately that hasn't worked out". Worsley says. What's more phytoestrogens may pose a health risk because studies have shown when they are applied to isolated breast cancer cells in a laboratory dish, the cells multiply. Because of this, "we actually recommend if women have had breast cancer they shouldn't take these substances". Whether phytoestrogens might increase the risk of breast cancer in healthy women isn't known. "That's another point women don't realise: we don't have the long-term safety data on a lot of these remedies. They are a bit of an unknown quantity".

But treatments other than hormone therapy do exist and if women want to try them, Worsley thinks that's "completely reasonable". They include low-dose antidepressants and anticonvulsants. The key is to get good advice about options, something that can be tricky as it is very hard for GPs to stay up to date. "It's a really complicated topic and it's been changing rapidly over the last decade".

At present, "women with very severe debilitating symptoms have to navigate this really complex pathway. They try all different types of practitioners, they try every kind of diet and detox and various exercise things. And they're trying all kinds of supplements. I think a lot of women are not getting high quality information on which to make a decision". She



suggests seeking out a "really good GP who's got an interest in women's health" or ask for a referral to a specialist who deals with menopausal symptoms. These are often gynaecologists or hormone specialists. There are also some lifestyle measures that can help. While menopause is a natural process, it "can be really disabling" for some women. "You can see why women are trying everything they possibly can to try and deal with it".

### **Part C -Text 2: Questions 15-22**

**15.** The writer suggests that the potential harm to women was?

- A. Approaching artificial menopause therapies.
- B. Failing to take medication appropriately
- C. Looking for traditional therapies for longer benefits
- D. Modern lifestyle adaptations

**16.** When commenting on the Alternative menopause therapies, Dr Roisin Worsley shows his?

- A. Frustration on women depending alternative menopause therapies
- B. Reluctance of using those medicines that cause side effects
- C. Surprise that how most people are using these medicines
- D. Concern over the approaching of traditional therapies

**17.** The author used the words it was very scary evidence at the time in the second paragraph to denote?

- A. A situation, when alternative therapies ending with cancer in people.
- B. The HRT research results feared off patients and doctors alike
- C. The fear of attacking cancer to the people, who have undergone regular therapies
- D. Mistaken view of the people, who had HRT research.

**18.** The meaning of the word offbeat in the third paragraph is

- A. different
- B. alike
- C. confusing

D. uncommon

**19.** After analyzing the data, the effect of hormonal therapy on women is?

- A. Minimal
- B. Severe
- C. Negligible
- D. Outweighed

**20.** What drawback does the author mention in the fourth paragraph?

- A. Phytoestrogens are not suitable to consume as food supplements
- B. Phytoestrogens may cause breast cell multiply, which leads to cancer
- C. Oestrogen is taken as complementary food supplement
- D. Author recommending to take them in conc. tablet form

**21.** Worsley used the expression completely reasonable in fifth paragraph, it says

- A. he wants people to undergo continual alternative menopause therapies
- B. suggesting other hormonal therapies
- C. to provide them better advice on treatment
- D. very hard to cope with regular therapies

**22.** What does the word "they in the final paragraph refer to?

- A. Women
- B. Practitioners
- C. Gynaecologists
- D. Symptoms

**END OF READING TEST, THIS BOOKLET WILL BE COLLECTED**