



The Example Modified Essay Questions (MEQs) were produced by the AFRM Faculty Assessment Committee for AFRM Adult Rehabilitation trainees.

The Example MEQs present a Rehabilitation Medicine scenario and related questions. They are provided to give candidates an understanding of the modified essay question structure and to illustrate some of the formats used in the examination.

The example solutions for each question are provided to give an example of the type of response required for a modified essay question.

Candidates may also use the Example MEQs as a training tool when preparing for the MEQ paper of the AFRM Fellowship Written Examination (Adult Rehabilitation).

Important Note: These are Example Modified Essay Questions only and are not the same questions that will appear in the examination. The example questions do not cover all topic areas and do not cover all formats for the modified essay question.

QUESTION 1

Mr XY is an 84-year-old right hand dominant man who sustained a left middle cerebral artery territory ischaemic stroke 7 days ago. He has been transferred from the general medical ward to the geriatric rehabilitation unit in which you are a Rehabilitation Physician.

His past medical history includes hyperlipidaemia, hypertension and paroxysmal atrial fibrillation. Prior to the stroke, he lived alone in a unit, accessible via 10 steps. His wife died 1 year ago and he has a 62-year-old son who lives locally, and who is very supportive. Mr XY was previously independent in all activities of daily living and drove a car.

On examination, he has flaccid right hemiparesis and moderate expressive and receptive dysphasia. You also note that he has a grade three infected sacral pressure area. As part of a discussion regarding the management of the ulcer, your registrar asks you about different ulcer dressing categories, how they work, and when they are used.

Question A In the table below, outline the mechanism of action and one indication for the four dressing categories.

Dressing category	Mechanism of action	Indication
Hydrocolloid dressing (e.g. Comfeel™)		
Foam dressing (e.g. Allevyn)		
Antimicrobial dressing (e.g. Inadine™)		
Negative pressure wound therapy (e.g. Vac dressing)		

Question B List four (4) modifiable risk factors for stroke which have a relative risk of 2 or greater
1
2
3
4
Question C List four (4) non-modifiable risk factors for stroke.
1
2
3
4
It is now 10 days after Mr XY's stroke. During case conference, the physiotherapist reports that Mr XY has right shoulder pain.
Question D List six (6) behavioural or physiological changes which would be consistent with Mr XY experiencing shoulder pain.
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Subluxation is an important cause of post-stroke shoulder pain.

Question E Briefly describe the cause of shoulder subluxation in the early post-stroke period.		
Question F Outline three (3) evidence-based prevention strategies for post-stroke shoulder		
subluxation.		
1		
2		
3		
Question G Other than subluxation, list four (4) important differential diagnoses you should consider to explain Mr XY's shoulder pain.		
1		
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4		

Question H

Seven weeks have now elapsed since the stroke. Mr XY has made some functional gains, but his function has now plateaued.

When walking, he requires constant assistance of one person. He needs prompting to understand instructions, and conversations about his basic daily needs 25% of the time, and the person giving instructions needs to speak more slowly, and repeat themselves. Mr XY can express his basic daily needs 75% of the time without prompting. He enjoys social situations such as meal time in the ward's dining room. He needs a helper due to his reduced attention, and ability to follow verbal and non-verbal cues. He interacts appropriately with other patients and staff about 70% of the time. He receives assistance to solve problems related to his basic daily needs 50% of the time. He also receives prompting with recognising and remembering his daily activities for one out of every three interactions.

Based on the information given, give Mr XY's score the Functional Independence Measure (FIM™).	es for the five cognitive domains of
Comprehension	
Expression	
Social interaction	
Problem solving	
Memory	
Mr XY's discharge plans are discussed during case cor require high-level care (nursing home placement) upon mentions that his son has Enduring Power of Attorney an place.	discharge. The Social Worker
Question I Briefly describe the purpose of an Advance Care Di Directive or Advance Health Directive).	·
Question J List three (3) requirements for decision-making cap	
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2	
	

QUESTION 2

Mr MC is an 86-year-old community dwelling man with a background history of peripheral vascular disease, hypertension, osteoarthritis, ischaemic heart disease and type two diabetes mellitus. He stopped smoking 10 years ago, and previously smoked one packet of cigarettes each day for 30 years.

Mr MC has a non-healing ischaemic ulcer of his left great toe. Despite optimal non-operative management in the Vascular Medicine ward, the ulcer does not heal, and a surgical consultation is sought. The surgeon suggests that the area is non-salvageable and requires amputation.

You are a Rehabilitation Physician in a metropolitan hospital, and the surgeon seeks your input regarding the potential surgical level of amputation.

Question A

List three (3) advantages and three (3) disadvantages of transmetatarsal amputation compared to transtibial amputation for this man.

Advar	ntages:
1.	
2.	
3.	
Disad	vantages:
1.	
2.	
3.	

Mr MC subsequently undergoes a left transtibial amputation. The post-operative period is complicated by development of atrial fibrillation, for which he commenced on a therapeutic dose of enoxaparin. He is subsequently admitted under your care for inpatient rehabilitation.

A week later after admission to inpatient rehabilitation, the physiotherapist reports that Mr MC has significant pain, which is interfering with his participation in therapy. He has pain in the left leg, both localised pain at the stump, and phantom pain in the amputated limb.

Question B List six (6) important differential diagnoses of the stump pain.
1
2
3
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6
The medical student attached to your ward asks you why Mr MC is developing phantom limboain. Question C Outline the two (2) most widely accepted mechanisms of phantom limb pain.
1
2
Mr MC's pain is interfering with his progression in rehabilitation. You discuss with your team various approaches for managing his pain. Question D
List six (6) pharmacological categories which have an evidence base for treating phantom limb pain.
phantom limb pain.
phantom limb pain.

Question E

List six (6) evidence-based non-pharmacological management options for treating phantom limb pain.

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6.	

Mr MC has been commenced on anticoagulant therapy with warfarin for newly diagnosed atrial fibrillation.

Question F

List six (6) topics that should be covered during warfarin education.

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The pharmacist asks whether you have considered changing him to one of the newer oral anticoagulants which have been "approved" for the prevention of stroke in non-valvular atrial fibrillation.

Question G Complete the table below, comparing properties of warfarin and rivaroxaban.

Property	Warfarin	Rivaroxaban
Mechanism of action		
Onset of action		
Antidote		

QUESTION 3

Miss AK is a 27-year-old lady with a past history of bipolar disorder and intravenous opiate drug use. She was previously on a methadone program, but is not currently.

Ten days ago, Miss AK was involved in a single vehicle car accident in which her car impacted with a tree. She sustained a fracture of the shaft of the right femur, which was internally fixed with a rod and screws; and a fractured left ankle that was placed in a fibreglass cast. She is to be reviewed by the orthopaedic surgeon in 6 weeks and is to remain non-weight bearing on both legs until that time. In the acute hospital, she developed an above knee deep vein thrombosis and was placed on full-dose therapeutic enoxaparin twice daily. She remains on this now, but warfarin will be commenced in the near future. Her current medications are as follows:

Enoxaparin 80 mg twice daily

Fluoxetine 40 mg daily

Lithium carbonate 500 mg daily

Diclofenac 50 mg three times daily

Oxycodone 5-10 mg when needed every 3 hours

Paracetamol (500 mg) and codeine phosphate (30 mg) combination – 1–2 tablets when needed, up to four times a day

Tramadol 50–100 mg when needed, every 4 hours

Miss AK is transferred to your general rehabilitation ward on Friday morning. The goal is to eventually discharge her to home using a wheelchair. On admission, Miss AK is noted to be agitated. She is still orientated, but the nurses are concerned.

Question A

Other than infection, list eight (8) specific differential diagnoses you should consider which could explain her agitation.

1.	
2.	
3.	
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On the Friday afternoon, Miss AK requests weekend leave.

Question B

List ten (10) specific factors you should take into account when considering your response to this request.

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Miss AK remains on the rehabilitation unit over the weekend. On Monday morning, the nursing staff report that over the weekend Miss AK requested additional pain medication every 2 hours.

Question C

List six (6) specific non-pharmacological approaches for the management of Miss AK's pain by the rehabilitation team.

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Four of Miss AK's friends visit her on the ward. After the visit, staff members note that she appears drowsy. There is no proof that she has taken any illicit drugs, but staff are concerned.

_	4.	
(.)	uestion	I)

List six (6) strategies that can be used to minimise potential illicit drug use on the ward by a patient with a history of illicit drug use.

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6.	

Miss AK notes a large lump on the lateral aspect of her right thigh. An ultrasound confirms it is a non-loculated haematoma of 400 millilitres volume. There are no signs of infection.

Question E

List six (6) points you will discuss with the patient regarding this haematoma and its management.

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Miss AK is discharged to home after a 4-week admission. She returns for follow-up in the rehabilitation outpatient clinic 8 weeks after the original injury. She reports that she is taking the following medications:

Fluoxetine 40 mg daily
Lithium carbonate 500 mg daily
Diclofenac 50 mg three times daily
Oxycodone 20 mg four times daily
Slow-release oxycodone 80 mg twice daily
Tramadol 100 mg qid
Warfarin 2 mg daily

Question F

List four (4) changes you will make to her current medications during this consultation.

1.	
2.	
3.	
4.	

QUESTION 4

You are a Rehabilitation Physician in a rehabilitation unit which is part of a tertiary metropolitan hospital.

Mr PD is a 44-year-old male who experienced subarachnoid haemorrhage (SAH) with intraventricular haemorrhage resulting from rupture of anterior communicating artery aneurysm, which was managed with coiling.

Mr PD has background of renal impairment secondary to autosomal dominant polycystic kidney disease. Prior to his SAH, he lived with his wife, and worked full-time as the Deputy Principal of a Secondary School.

Principal of a Secondary School.	
Question A What is the first-line imaging modality used in the diagnosis of acute SAH?	
You are asked to review Mr PD 1 week into his admission regarding his suitability for inpatient rehabilitation. You review his admission notes.	
Question B List six (6) specific complications seen in the early stages after the SAH.	
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6. -----

Mr PD is transferred to inpatient rehabilitation. You mention to your Registrar that this patient will need to be monitored for complications resulting from his renal impairment.

Question	C
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Other than hyperkalaemia, list three (3) metabolic problems related to chronic renal
failure that you need to be aware of, and which should be monitored for in this patient

Question D Other than requesting an electrocardiogram, list four (4) things the registrar should do
From blood tests that were taken on the day of Mr PD's transfer to inpatient rehabilitation, a potassium level of 6.9 mmol/L is noted.
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Oth at this point.

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Question E

List two (2) electrocardiogram (ECG) changes frequently associated with potassium of this level.

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During the first case conference regarding Mr PD, the Occupational Therapist mentions that Mr PD has apraxia affecting his upper limbs.

Question F	
Define apraxia.	
Question G	
Describe three (3) bedside assessments you should perform to assess Mr PD's apraxia.	
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Three weeks after his SAH, Mr PD has progressed well and is to be discharged in a couple	
days. During your final review of Mr PD before he is discharged home, he asks when he careturn to driving.	ίω
Question H Outline eight (8) key components for a return to driving plan for Mr XY.	
Outline eight (a) key components for a return to driving plan for wir X1.	
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Mr PD returns to your outpatient clinic for review 3 months after the SAH, and is accompanied by his wife. At the consultation, Mr PD reports concerns about his memory, and that he feels "depressed". His GP has commenced him on amitriptyline for management of depression.

Question I List four (4) commonly reported side-effects of amitriptyline.
1
2
3
4
Question J List four (4) evidence-based non-pharmacological approaches for management of mile to moderate depression in a person with a new disability.
1
2
3
4
You explain to Mr PD and his wife that depression is a relatively frequent occurrence after SAH, and may be in response to residual frontal lobe losses. You suggest he undergo neuropsychological testing in preparation for his return to work planning.
Question K List three (3) screening tools specific for frontal executive dysfunction.
1
2
3

QUESTION 5

You are a Rehabilitation Physician in a regional public hospital. You are asked to review a 60-year-old lady, Ms BP on the Orthopaedics ward.

Ms BP has a background of a T10 ASIA B (Thoracic level 10, American Spinal Cord Injury Association Grade B) spinal cord injury following a motor vehicle accident 20 years ago.

She was admitted to hospital 5 days ago following a fall when transferring out of bed. She was diagnosed with bilateral pubic ramus fractures.

She is a current smoker, and has smoked a packet of cigarettes daily for approximately 40 years. She drinks half a bottle of wine most nights. She eats take-away food for most of her meals, and states that she has gained "a lot of weight in the last few years". Her current Body Mass Index (BMI) is 41.

When you see her, she is lying on a regular mattress. She complains of moderately severe ill-defined pain her legs. The Orthopaedic team has recommended non-operative management of her pelvic fractures. She has an indwelling catheter, and last opened her bowels prior to admission. You note a grade two sacral pressure area. Her fasting blood sugar level is 12 mmol/L and blood pressure of 160/100 mmHg.

Question A List six (6) issues which should take priority in the medical management of Ms BP.

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2.	
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The nurses point out to you that Ms BP has not opened her bowels since she was admitted 5 days ago.

Question B

List five (5) principal components of a bowel care regimen for Mrs BP, giving a brief reason for each component.

Component	Reason
Component 1.	
2.	
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3.	
4.	
5.	
J.	

Ms BP lives alone in rural New South Wales, and receives a government disability pension. She has not had any specialist follow-up regarding her spinal cord injury for many years. She has a General Practitioner, who she sees when needed. She has an account with a medical supplier for her bladder management needs.

Prior to admission, Ms BP was mobile with a manual wheelchair, using a sliding board for transfers. She was independent with self-care and had no support services in place. She performed regular self-catheterisation. She had three urinary infections in the past year.

You accept care of Ms BP, and she is transferred to your onsite rehabilitation unit.

Over the last few years, Ms BP has been experiencing gradually worsening pain in both her shoulders. An ultrasound performed earlier this year prior to admission showed bilateral partial rotator cuff tears. Ms BP has been concerned about her worsening shoulder function and pain.

Question C

Outline six (6) strategies to reduce the likelihood of further deterioration in her shoulder function and pain.

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2.	
3.	
4.	
5.	
6.	

During the case conference, you discuss discharge planning for Ms BP with the rehabilitation team. The Occupational Therapist says that Ms BP will need a powered wheelchair on discharge.

Question D

List four (4) important features of the prescription of a power wheelchair for Ms BP.

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2.	
3.	
4.	

Question E

Other than a power wheelchair, list four (4) pieces of equipment or assistive device	S
which may assist with Ms BP's successful discharge home.	

A
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2.
4
Ms BP is discharged to home after 6 weeks of inpatient rehabilitation.
She returns for follow-up in the rehabilitation outpatient clinic 8 weeks after discharge. She brings the results of a Bone Mineral Density scan report which you had requested on discharge. The T score is −3.5 for the left hip.
Question F List six (6) important risk factors for osteoporosis in Ms BP.
1
2
3
4
5
6
She had elected to continue with self-catheterisation. Since her discharge home, she has had one urinary tract infection and is experiencing urinary leaking between self-catheterisations at least daily.
Question G Outline four (4) actions in your plan for monitoring long-term bladder health in Ms BP.
1
2
3

QUESTION 6

Miss DW is a 38-year-old female, who was given a confirmed diagnosis of relapsing remitting multiple sclerosis 2 months ago, after two symptomatic exacerbations 1 year apart. The magnetic resonance imaging (MRI) brain scan showed areas of increased T2 signals in both cerebral hemispheres and the left cerebellum. Cerebrospinal fluid (CSF) obtained during a spinal tap revealed the presence of oligoclonal bands. Miss DW has been put on natalizumab (Tysabri™).

What	does the presence of oligoclonal bands in the CSF indicate?
0	
List f	tion B our (4) nervous system side effects or complications of natalizumab (Tysabri™).
3.	

You are seeing Miss DW for her initial rehabilitation assessment in the rehabilitation outpatient service of a tertiary hospital. She has been referred to you by her neurologist, and to date, she has not had any contact with rehabilitation, allied health or community health services.

She had one fall a month ago without injury, and reports poor balance. She reports painful spasms in her legs. She walks without assistance with a single point stick in her right hand to a maximum distance of 60 metres before resting. She reports that she always feels tired. She is independent with her personal activities of daily living, though she takes longer than she used to and now has to sit down to shower and dress. She avoids cleaning the house because of fatigue. She continues to drive an automatic car.

When you examine her, you note slight reduction in upper and lower limb power, lower limb spasticity, ataxic gait, truncal ataxia and intention tremor of the left upper limb with past pointing.

Question C How are "cerebellar" tremors distinguished from tremors due to basal ganglia disease?		
Question D Other than fatigue management, list ten (10) issues in your rehabilitation medicine plan for this lady.		
1		
2		
3		
4		
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6		
7		
8		
9		
10		
10		
You advise Miss DW that exposure to increased temperature can make fatigue and weakness worse.		
Question E What is the scientific basis for symptoms exacerbation due to temperature in MS?		

Question F

Other than temperature control strategies, list six (6) non-pharmacological approach	nes
for managing fatigue in multiple sclerosis.	

1.	
2.	
3.	
4.	
5.	
6.	

There are a number of medications which have been used to manage fatigue in multiple sclerosis.

Question G

Name two (2) medications which may be used to assist in the management of fatigue in multiple sclerosis, and give the mechanism of action for each.

Medication	Mechanism of action
1.	
2.	

Question H

List two (2) disease specific outcome measures for multiple sclerosis.

1	
٠.	
2	

You refer Miss DW for outpatient rehabilitation. The rehabilitation physiotherapist wants to use "Timed Up and Go" as one of the outcome measures.

Question I List six (6) components of the Timed Up and Go.	
1	
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6	
Six months later, Miss DW returns for rehabilitation follow-up with you. She reports to onset of pain in her right hand and wrist, with a feeling of numbness in her right han symptoms are worst at night and affect her sleep and daily activities. You would like investigate this with neurophysiology studies to rule out carpal tunnel syndrome. Question J List four (4) abnormalities in neurophysiology studies that would support a diof carpal tunnel syndrome.	d. These to further
1	
2	
3	
4	
Question K List four (4) non-operative treatment options for carpal tunnel syndrome in Mi	
1	
2	

3. ------

QUESTION 7

Ms AF is a 21-year-old refugee who arrived in your rural community 6 months ago with her parents and two brothers to join other members of her extended family who had settled here 3 years ago. She is unable to read or write English, except at a very basic level. She had recently found work at the local supermarket stacking shelves, and is employed on a casual basis. She has also joined a local Women's Group making handcrafts.

Two weeks ago, Ms AF slipped in the bathroom at her rented home, striking her head on the bathtub rim. She sustained loss of consciousness of several minutes and was admitted to the local hospital. A Computerised Tomography (CT) scan of her brain demonstrated a small intracerebral haemorrhage in the right frontoparietal region, which was managed non-operatively.

Ms AF was transferred to the rehabilitation ward 3 days after admission. On examination at admission, the registrar notes "mild weakness and spasticity of the left upper limb" in the medical record.

Question A

List four (4) options for conveying information to Ms AF and her family.

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2.	
3.	
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4.	

Ms AF has always used her right hand for eating, and her left hand for personal care tasks such as bathing and personal hygiene due to her religious and cultural beliefs. At the weekly multidisciplinary team meeting, the Occupational Therapist reports that Ms AF's left upper limb weakness and spasticity significantly interfere with her ability to independently bathe and tend to personal hygiene. Ms AF will not use her right hand to assist in self-care tasks.

You acknowledge that the Occupational Therapist has unusual challenges in this case, and that they may need to be more inventive than usual in identifying how to assist this person with what could be considered bilateral upper limb dysfunction in the presence of normal lower limb function.

Question B

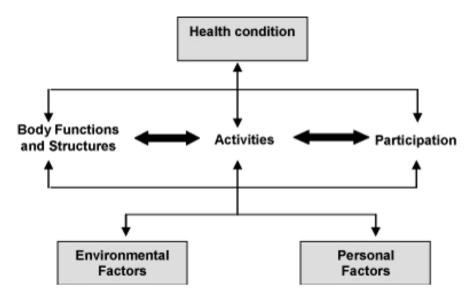
List six (6) things that the Occupational Therapist can do to assess and address her personal care issues both now and possibly in the future.

1.	
2.	
3.	
4.	
5.	
6.	

Ms AF is discharged home after 2 weeks of inpatient rehabilitation. Meanwhile, you are asked to prepare a medicolegal report on Ms AF for a civil compensation suit.

Question C

Using the World Health Organization's International Classification of Functioning, Disability and Health (ICF) depicted below, outline one (1) example of each of the domains relevant to Ms AF for the purposes of this report.



Health condition
Body function and structures
Activities
Participation
Environmental factors
Personal factors

You realise that you do not know if Ms AF has cognitive impairments. You speak with your team and arrange for a Psychologist to perform Wechsler Adult Intelligence Scale (WAIS) testing in her language.

Question D List two (2) tests for each of the verbal and non-verbal components of the WAIS.

Verbal IQ (intelligence quotient)	Performance IQ (intelligence quotient)

Ms AF returns to the outpatient clinic 6 weeks after the injury. A hospital interpreter and a medical student are present during the consultation. Ms AF reports that she has ongoing headaches for which she has been taking paracetamol 1 g four times a day.

Question E

List two (2) possible causes of headaches that you should consider.

1.	
2.	

Ms AF has not returned to work since her injury, but is keen to go back to work. You note that her psychologist report suggests that she has a verbal IQ of 115 and a performance IQ of 105.

Question F

Outline twelve (12) important components in your return to work plan for Ms AF.

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2.	
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Following the consultation with Ms AF, the medical student asks you about classification of traumatic brain injury severity.

Question G

Complete the table below regarding classification of severity of traumatic brain injury.

	Glasgow Coma Scale score	Duration of post- traumatic amnesia	Duration of loss of consciousness
Mild			
Moderate			
Severe			

- END OF EXAMPLE QUESTIONS -