



NZREX CLINICAL

Sample questions

NZREX Clinical is an examination that specifically focuses on the application of **clinical knowledge** and **clinical decision making**. The stations are structured to examine the candidate's ability in these areas. In preparing for NZREX Clinical, candidates are encouraged to focus on the management of common clinical conditions encountered at the level of a recent New Zealand graduate (intern level).

NZREX Clinical has dynamic and static stations. The majority of stations are dynamic stations where an actor plays the role of a simulated patient. An examiner is also present at these stations.

Dynamic stations will assess:

- communication and professionalism
- appropriate clinical examination in a given clinical scenario
- management and appropriate investigations
- history taking appropriate to the presenting clinical problem, or
- other tasks that demonstrate the application of clinical reasoning.

Static stations are paper based and do not have an actor present. These stations focus on application of clinical knowledge and clinical reasoning related to activities such as:

- interpreting x-rays of common conditions and deciding on appropriate management
- interpretation of common abnormal blood tests and deciding on correct management
- interpretation of other investigative tests such as ECGs, spirometry etc, and deciding on appropriate management.

Many of these stations have a patient scenario. Candidates are required to choose the correct clinical management from relevant investigations for that scenario.

It is expected that candidates will demonstrate good communication skills in all dynamic stations and candidates will be marked on their communication skills. Typical circumstances requiring good communication that interns would encounter include:

- communication with other staff, such as nurses
- gaining informed consent for standard procedures
- delivering bad news
- telephoning a registrar or a consultant seeking advice on management
- writing discharge letters.

The following sample questions are typical examples of stations that candidates may encounter in NZREX Clinical. These questions are provided to give candidates an understanding of what is expected of them during the exam and how to approach various types of stations. The questions are intended as a guide only. Candidates are advised not to focus excessively on the clinical detail contained in the following questions as they prepare for NZREX Clinical.



NZREX CLINICAL

History Station

A history station is solely concerned with examining a candidate's ability to take an adequate history. If the instruction is to take a history, there will be no marks available for clinical examination or discussing treatment options. The examiners are looking for a directed approach from the candidate that indicates selective questioning appropriate to the clinical problem that is likely to lead to an accurate diagnosis. In some stations, the candidate will be asked what the differential diagnosis is at the end of the station.

The following case is given as an example:

Instructions for actor:

You are a 65 year old man who has been sent by your general practitioner to outpatients at a hospital for an opinion. You have had increasing pain in your right leg for 9 months now. It started as an ache when walking that you felt mainly in your right calf. If you stopped walking the pain would go in a couple of minutes. Although you used to be able to walk about a kilometre, the pain seems to come on much sooner now and you find that walking more than 100 metres will bring the pain on. Over the last month or so you have noticed that your foot feels very cold at night. You have not had any pain in your leg or foot when resting.

Past history:

You have had high blood pressure for about 10 years. You take bendrofluazide for this. More recently your general practitioner put you on medication called felodipine to assist with your blood pressure and to help with the leg pain. It seems to have made little difference to the pain.

You had your appendix removed as a young man and had fractured an ankle many years ago that required you to be in a cast for 6 weeks. You smoke 20 cigarettes a day and have done so since you were about 20 years of age. You go to the RSA club on a Friday night and have about 3-4 glasses of beer, but do not drink alcohol apart from this. You are retired from your job as an electrician and live with your wife, she keeps in good health.

Instructions for candidates:

You are seeing a patient in outpatients who has been referred by his general practitioner because of leg pain. Please take a history from the patient.

Do not undertake a clinical examination and do not discuss treatment options as there are **no** marks available for either of these.



NZREX CLINICAL MARK SHEET

History Station

- The standard expected is that of recent New Zealand graduate (new house officer).

	Performed competently	Performed but not fully competent	Not performed or incompetent								
History of increasing pain in calf	7	3.5	0								
Pain worse with exercise, relieved with rest	7	3.5	0								
No rest pain	7	3.5	0								
Cold foot at night	7	3.5	0								
History of smoking 45 years	7	3.5	0								
Alcohol history	7	3.5	0								
Previous work	7	3.5	0								
History of 10 years of hypertension	7	3.5	0								
Medications	7	3.5	0								
Diagnosis of peripheral arterial disease	7	3.5	0								
	TOTAL (max 70) =										
Actor's mark	0	1	2	3	4	5					
Examiner's mark (overall approach to task)	0	1	2	3	4	5					
Communication (description below)	0	1	2	3	4	5	6	7	8	9	10
<i>The behaviours to look for when scoring communication skills include: clear language, comfortable pace, refraining from interrogation, sequenced approach, involves the patient, seeks patient clarification, and manages patient emotion.</i>											
Professionalism (description below)	0	1	2	3	4	5	6	7	8	9	10
<i>Candidates should display a good sense of professionalism this would encompass areas such as: integrity, respect, cultural competence, ethical practice, non discrimination, and honesty.</i>											
	TOTAL (Max 30) =										
EXAMINER:	Under 'overall approach to task' please score the candidate (from 0 to 5) on how effectively and efficiently they completed the station task.										
Overall rating of station	Clear Fail			Borderline			Clear Pass				



NZREX CLINICAL

Clinical Examination Station – Case 1

The clinical examination station is a test of the candidate's ability to undertake a competent physical examination to the standard required of a recent New Zealand medical graduate.

Candidates must remember to focus only on the physical examination requested and not on history taking or other parts of a consultation. Apart from the initial introduction, no marks will be awarded for anything other than the physical examination.

The following two cases are given as examples:

CASE 1:

Instructions for actor:

Please comply with the request of the doctor as she or he examines you.

Instructions for candidate:

This patient suffered a minor trauma to their right knee 2 weeks ago. Please examine this patient's right knee joint. There may or may not be discoverable pathology. Please tell the examiner what you are doing.

Do not take a history or carry out an examination outside the request, as there will be **no** marks available for such activities.



NZREX CLINICAL MARK SHEET

Clinical Examination Station – Case 1

- The standard expected is that of recent New Zealand graduate (new house officer).

	Performed competently		Performed but not fully competent					Not performed or incompetent				
Observes patient walking and observes muscle wasting, bruising, and swelling	10		5					0				
Active range of movement	10		5					0				
Passive range of movement	10		5					0				
Tests for joint effusion	10		5					0				
Tests collateral ligaments	10		5					0				
Tests cruciate ligaments	10		5					0				
Palpitates joint margin	10		5					0				
TOTAL (max 70) =												
Actor's mark	0	1	2	3	4	5						
Examiner's mark (overall approach to task)	0	1	2	3	4	5						
Communication (description below)	0	1	2	3	4	5	6	7	8	9	10	
<i>The behaviours to look for when scoring communication skills include: clear language, comfortable pace, refraining from interrogation, sequenced approach, involves the patient, seeks patient clarification, and manages patient emotion.</i>												
Professionalism (description below)	0	1	2	3	4	5	6	7	8	9	10	
<i>Candidates should display a good sense of professionalism this would encompass areas such as: integrity, respect, cultural competence, ethical practice, non discrimination, and honesty.</i>												
TOTAL (Max 30) =												
EXAMINER:	Under 'overall approach to task' please score the candidate (from 0 to 5) on how effectively and efficiently they completed the station task.											
Overall rating of station	Clear Fail			Borderline				Clear Pass				



NZREX CLINICAL

Clinical Examination Station – Case 2

CASE 2:

Instructions for actor:

Please comply with the request of the doctor as she or he examines you.

Instructions for candidate:

A 56 year old man presents to casualty with a sudden onset of shortness of breath. Please undertake a physical examination appropriate to his symptoms. There may or may not be discoverable pathology. Please tell the examiner what you are doing.

Do not take a history or carry out an examination outside the request, as there will be **no** marks available for such activities.



NZREX CLINICAL MARK SHEET

Clinical Examination Station – Case 2

- The standard expected is that of recent New Zealand graduate (new house officer).

	Performed competently	Performed but not fully competent	Not performed or incompetent								
Blood pressure lying and standing	7	3.5	0								
Pulse	7	3.5	0								
Comments on cyanosis	7	3.5	0								
Comments on respiratory rate and depth	7	3.5	0								
Position of trachea	7	3.5	0								
Chest auscultation	7	3.5	0								
Chest percussion	7	3.5	0								
Heart sounds	14	7	0								
Peripheral odema	7	3.5	0								
TOTAL (max 70) =											
Actor's mark	0	1	2	3	4	5					
Examiner's mark (overall approach to task)	0	1	2	3	4	5					
Communication (description below)	0	1	2	3	4	5	6	7	8	9	10
<i>The behaviours to look for when scoring communication skills include: clear language, comfortable pace, refraining from interrogation, sequenced approach, involves the patient, seeks patient clarification, and manages patient emotion.</i>											
Professionalism (description below)	0	1	2	3	4	5	6	7	8	9	10
<i>Candidates should display a good sense of professionalism this would encompass areas such as: integrity, respect, cultural competence, ethical practice, non discrimination, and honesty.</i>											
TOTAL (Max 30) =											
EXAMINER:	Under 'overall approach to task' please score the candidate (from 0 to 5) on how effectively and efficiently they completed the station task.										
Overall rating of station	Clear Fail	Borderline					Clear Pass				



NZREX CLINICAL

Investigating and Clinical Reasoning Station

These stations may be static stations with no actor involved, or the station may have an actor present to examine the candidate's ability to perform a test or procedure.

The following example is a static station:

Instructions for candidate:

There are five questions in this station. Please read the following and enter your answer in the mark sheet.

1. X-ray interpretation

A 45 year old man is brought to casualty with a 3 hour history of increasing shortness of breath. His chest x-ray is shown. The most correct initial course of action is:

- a) treat with frusemide intravenously
- b) insert a chest drain
- c) admit for parental antibiotics
- d) refer to respiratory outpatients
- e) treat with oral antibiotic and review in outpatient in 24 hours.

2. X-ray interpretation

A 62 year old woman is brought down to casualty as a result of a fall. She complains of pain in her right wrist. Her x-ray is shown. The most correct initial course of action is:

- a) admit for open reduction and internal fixation
- b) admit for closed reduction under general anaesthetic
- c) closed reduction in casualty and backslab
- d) cast with no reduction required
- e) supportive bandage and refer to physiotherapist for mobilisation.

3. ECG interpretation

A 67 year old man presents with a 4 hour history of feeling light headed. He is a diabetic controlled with oral medication. He doesn't have chest pains. Routine bloods are normal including Troponin. Physical examination is normal. His ECG is shown. The most appropriate course of action is:

- a) admit acutely to coronary care
- b) refer to cardiology outpatients
- c) commence aspirin and refer to general practitioner
- d) admit for heparin.

4. Blood test interpretation

A 24 year old woman presents to casualty with fatigue and vague upper abdominal pain from the previous week.

Her blood tests show:

FBC

Hb= 140 (N = 135 – 175 g/l)
Platelets= 180 (N = 160 – 400 x 10⁹)
MCV= 88 (N = 80 – 100 fL)
MCH = 28 (N = 24 - 32 pg)
WBC= 6.8 (N = 4.0 – 14.0 x 10⁹)
Neutrophils= 8.1 (N = 2.0 – 6.0 x 10⁹)
Lymphocytes= 5.8 (N = 1.0 – 4.0 x 10⁹) ***
Monocytes= 0.9 (N = 0.5 – 1.5 x 10⁹)
Eosinophils= 0.02 (N = 0.0 – 0.6 x 10⁹)
Film shows atypical lymphocytes of 15%

Liver function tests

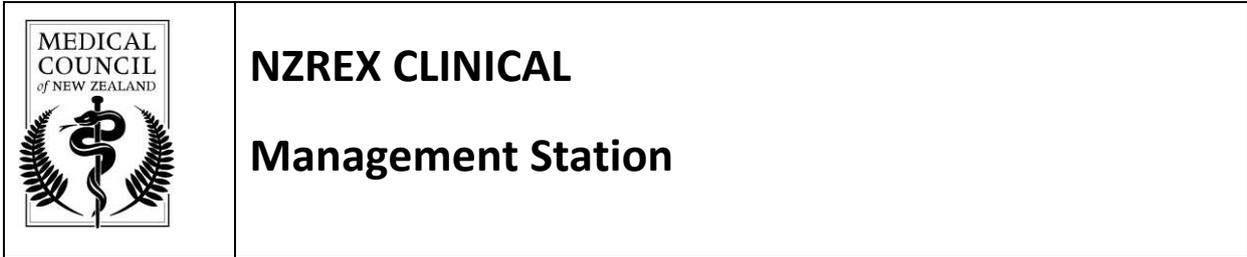
Bilirubin 27 (RR <20 µmol/L)
ALT 110 (RR <50 U/L) ***
AST 51 (RR <35 U/L) ***
GGT 35 (RR <50 U/L)
ALP 92 (RR 30-120 U/L)
Albumin 38 (RR 35-50 g/L)
Total protein 89 (RR 60-80 g/L)

The most appropriate course of action is:

- a) admit for investigation
- b) arrange ultrasound of her abdomen on an outpatient basis
- c) refer to gastroenterology outpatients for liver biopsy
- d) refer to general practitioner
- e) arrange bone marrow biopsy.

Mark sheet

Question number	Answer
1	
2	
3	
4	



Stations that test the candidate's knowledge and ability to manage acute serious deterioration may be static or dynamic.

This example is a static station:

Instructions for candidate:

For each of the scenarios below, list up to five of the most important tests that should be undertaken on the following mark sheet.

CASE A

A 60 year old woman is recovering from a laparoscopic cholecystectomy. The nurses report her to be confused over the last 6 hours. Examination shows her blood pressure to be 140/82, her temperature to be normal, her pulse is 94, her abdomen is soft and minimally tender and her chest is clear. She is tachypnoeic with a respiratory rate of 20.

CASE B

A 32 year old man presents at casualty with 3 hours of severe upper abdominal pain radiating to his back and vomiting that has occurred after drinking alcohol. Examination shows his blood pressure to be 104/60, bowel sounds are hypoactive, pulse of 110 and his upper abdomen is markedly tender.

CASE C

A 20 year old woman presents with 4 hours of left sided abdominal pain and vaginal bleeding. She tells you that she is 6 weeks pregnant. Examination of her abdomen reveals tenderness in her left iliac fossa and internal examination shows adenexal tenderness with cervical examination.

CASE D

A 45 year old man is seen in casualty. He has a midshaft fracture of his tibia and fibula that needs internal fixation. He is a diabetic and has hypertension on controlled medication.

CASE E

An 18 year old woman presents with a history of 5 days dysuria and frequency. Over the last 24 hours she has developed moderately severe right sided back pain. Examination shows her to be febrile with a temperature of 38.2 C and she is markedly tender to percussion over her right renal angle.

Management mark sheet

Tick a **maximum of five** options for each case

Listing more than five options will result for no marks for that case.

	CASE A	CASE B	CASE C	CASE D	CASE E
Chest x-ray					
Liver function tests					
ECG					
Serum sodium and potassium					
Cross match of blood					
Serum uric acid					
Serum creatinine					
Serum glucose					
Blood gas					
Serum amylase					
Swab of surgical wounds for culture					
Abdominal x-ray					
Thyroid function tests					
ESR					
C reactive protein					
CT scan of head					
Full blood count					
Blood cultures					
Mid stream urine					
Ultrasound of abdomen					

NOTES

In a question structured as above, the examiners will have decided upon the most important investigations to be undertaken for each scenario. It may be that there are less than five tests considered to be crucial by the examiners.

For example, in scenario C, the crucial tests may be ultrasound, full blood count, and cross match. The candidate would gain full marks if all three were included in the five tests ticked.

It is important that candidates do not tick more options than is indicated, as doing so will result in no marks being awarded for that case.



NZREX CLINICAL

Clinical Reasoning Station

Scenarios that test the candidate's ability to prioritise in a clinical setting may be static or dynamic stations. The examiners are looking for appropriate management that would indicate good clinical reasoning.

The following example is given as being representative of a static station.

Instructions for candidate:

For the following scenarios, indicate the **most** appropriate course of action.

Part 1

An 82 year old man presents with increasing confusion that he has had for 1 week. Examination is unhelpful, however, show him to be afebrile, his pulse is 72 and regular. His notes indicate minor head trauma 3 weeks ago, but are otherwise unhelpful.

- a) admit acutely to hospital
- b) refer to geriatric outpatients
- c) review in 2 days
- d) refer to social workers
- e) commence treatment with antibiotics.

Part 2

You are called to see a 72 year old woman in a rest home. She has been generally unwell for 2 days with mild fever. She has mild dementia and type 2 diabetes. Treatment with trimethoprim for presumed cystitis was initiated yesterday. Examination shows a temperature of 37.6, her blood sugar is 8.4, blood pressure is 168/86, and her pulse is 74 and regular. There are no other findings of note.

- a) admit acutely to hospital
- b) refer to geriatric outpatients
- c) review in 2 days
- d) refer to social workers
- e) commence treatment with antibiotics.

Part 3

A 74 year old man living with his family has become disruptive at times over the last 2 weeks, particularly at night. When you see him at home he is aggressive and uncooperative. His pulse is 92 and regular, blood pressure is 132/68 and his temperature is 37.9.

- a) admit acutely to hospital
- b) refer to geriatric outpatients
- c) review in 2 days
- d) refer to social workers
- e) commence treatment with antibiotics.

Part 4

A 68 year old woman is recovering from surgery to a pin fracture of her left neck of femur 2 weeks ago. Her daughter is concerned as her mother appears confused. Examination shows a mildly confused elderly woman, her pulse is 84 and regular, blood pressure 156/82, her respiratory rate is 22 and regular, her temperature is 37.4, her chest is clear. The surgical site is healthy. There are no other abnormal findings on examination.

- a) admit acutely to hospital
- b) refer to geriatric outpatients
- c) review in 2 days
- d) refer to social workers
- e) commence treatment with antibiotics.

Part 5

A 73 year old man living alone at his home has become progressively more forgetful. He has left the hot plate of the stove going on several occasions. There is documented evidence of several previous small strokes. He has a history of hypertension but not other major medical problems. Examination shows mild L hemiparesis as previously noted and a blood pressure of 172/90. There are no other examination findings of note.

- a) admit acutely to hospital
- b) refer to geriatric outpatients
- c) review in 2 days
- d) refer to social workers
- e) commence treatment with antibiotics.

Mark sheet

Part	Answer
1	
2	
3	
4	
5	



NZREX CLINICAL MARK SHEET

INTEGRATED STATION

PATIENT INSTRUCTIONS

- Your name is John Smith and you are 50 years old. You are seeing a doctor in the Accident and Emergency Department.
- You have had an x-ray taken of your ankle and are now going to see a doctor.
- Five days ago, you were playing soccer on a wet field; you slipped and rolled your right ankle. You think that your foot went inwards.
- You could not play on because of the pain. You iced it immediately and then every 2 hours for the remainder of that day. The ankle became swollen on the outside within an hour of injuring it.
- You strapped the ankle which seemed to help a little.
- You are an architect. Because you have been busy, you didn't get your ankle seen by a doctor at the time.
- The swelling has mostly gone but the ankle is still quite sore.
- You can walk reasonably comfortably but get increased pain with running.
- You want to get back to playing soccer and so you decided to have your ankle seen at the Accident and Emergency Department.
- You wonder if you need a cast or a splint of some sort.
- You are otherwise fit and healthy. You have never damaged your ankle before. You take no medications.

The specific questions you have for the doctor are:

1. What is wrong with your ankle?
2. What therapy is needed?
3. When can you get back to playing soccer?



NZREX CLINICAL MARK SHEET INTEGRATED STATION

CANDIDATE INSTRUCTIONS

- You are a house officer in the Accident and Emergency Department.
- You have been requested to see a patient John Smith who has injured his ankle.

Your task is to

- Take a **focused history** relevant to the presenting complaint.
- Undertake a **focused examination** relevant to the presenting complaint.
- **Describe the x ray** that will be presented to you.
- Describe to John what your **management** will be.

EXAMINER:	EXAM DATE:
CANDIDATE:	CANDIDATE ID:

	<h2>NZREX CLINICAL MARK SHEET</h2> <h3>INTEGRATED STATION</h3>
--	--

- The standard expected is that of recent New Zealand graduate (new house officer).

	Performed competently	Performed but not fully competent	Not performed or incompetent
HISTORY			
Mechanism of injury	2	1	0
Inversion of foot	4	2	0
Immediate swelling	2	1	0
Unable to play on	2	1	0
Previous history of injury	2	1	0
Current level of disability	2	1	0
EXAMINATION			
General observation for swelling etc	2	1	0
Walk four paces	2	1	0
Checks for tenderness lower 6 cms of fibula and tip of distal fibula	2	1	0
Checks for tenderness over base 5 th metatarsal	2	1	0
Checks for navicular tenderness	2	1	0
Checks for deltoid ligament/medial malleolar tenderness	2	1	0
Tests anterior talo-fibular ligament	2	1	0

X RAY INTERPRETATION			
Notes soft tissue swelling lateral malleolus	2	1	0
Describes fracture as Weber A <u>OR</u> avulsion fracture	4	2	0
Notes normal medial malleolus and normal syndesmosis	2	1	0

MANAGEMENT												
Informs that cast is not necessary	2			1			0					
Advises physiotherapy	2			1			0					
Advises that about 6 – 8 weeks will be required before considering soccer again but may be more	2			1			0					
TOTAL (max 70) =												
Patient/actor's mark	0	1	2	3	4	5						
Examiner's mark (overall approach to task)	0	1	2	3	4	5						
Communication <i>(description below)</i>	0	1	2	3	4	5	6	7	8	9	10	
<i>The behaviours to look for when scoring communication skills include: clear language, comfortable pace, refraining from interrogation, sequenced approach, involves the patient, seeks patient clarification, and manages patient emotion.</i>												
Professionalism <i>(description below)</i>	0	1	2	3	4	5	6	7	8	9	10	
<i>Candidates should display a good sense of professionalism this would encompass areas such as: integrity, respect, cultural competence, ethical practice, non discrimination, and honesty.</i>												
TOTAL (Max 30) =												
EXAMINER:	Under 'overall approach to task' please score the candidate (from 0 to 5) on how effectively and efficiently they completed the station task.											
Overall rating of station	Clear Fail			Borderline			Clear Pass					



