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Consultant Physicians in Nuclear Medicine

## PATIENT DETAILS

Name

Address

DOB

Telephone

- GENERAL NUCLEAR MEDICINE (specify)
- MYOCARDIAL PERFUSION
  - Exercise
  - Dipyridamole
  - Dobutamine
- NUCLEAR MEDICINE THERAPY

## AREA TO BE EXAMINED

## CLINICAL HISTORY

## REFERRING DOCTOR

Name

Address

Signature

Date

### Appointment Details

Date:

Time:

**HERVEY BAY**  
Shop 2  
46-48 Main Street  
PIALBA 4655  
Phone 4124 3580  
Fax 4128 1870

**BUNDABERG**  
Mater Private Hospital  
Hope Street  
BUNDABERG 4670  
Phone 4151 6880

All correspondence:  
PO Box 2752  
BUNDABERG 4670



## DIAGNOSTIC NUCLEAR MEDICINE

Bone Scan	Bone metastases, osteomyelitis, stress fractures, bone tumours, arthritis, loose prosthesis, osteonecrosis, RSD and tumour staging.
Thyroid Scan	Thyroid nodules, goitre, all causes of hyperthyroidism, thyroiditis.
Parathyroid Scan	Localisation of parathyroid adenoma using myocardial perfusion isotopes.
Myocardial Perfusion (thallium/sestamibi)	Assessment of myocardial ischaemia and viability. For patients unable to exercise dipyridamole or dobutamine (for asthmatics) are used.
Lung Scan	Ventilation and perfusion-pulmonary emboli. More sensitive and far less radiation than helical CTPA. Regional quantification. Right to left shunts.
Renal Scan (DTPA) (+/-captopril or frusemide)	Differential renal function, renovascular hypertension, ureteric obstruction. MAG3 is substituted in children. GFR quantification if requested.
Renal Scan (DMSA)	Renal scarring and acute pyelonephritis (more sensitive than ultrasound). Differential function (particularly if one kidney is small or ectopic).
Gallium Scan	Lymphoma staging and response to treatment. PUO. Sarcoidosis. Chronic infections, eg osteomyelitis and infected joint prosthesis.
White Cell Scan (Tc)	Localisation of acute or subacute infection. Assessment of activity of inflammatory bowel disease.
Colloid Liver Scan	Diffuse or chronic liver disease. Assessment of liver nodules (FNH)
Labelled Red Cell Scan	Haemangioma of the liver. Gastrointestinal haemorrhage.
Biliary Scan (HIDA)	Acute cholecystitis. Biliary obstruction or dysfunction. CCK used for chronic cholecystitis or sphincter of Oddi dysfunction.
Lymphoscintigraphy	Sentinel node localisation in breast cancer and melanoma. Assessment of lymphoedema and lymphatic drainage.
Cerebral perfusion (Ceretek or ECD)	Dementias and cognitive impairment and cerebrovascular disease.
Gastric Emptying	Quantitative assessment of solid gastric emptying using a labelled egg sandwich. Half clearance time and % retained at 3 hours are calculated.
Colonic Transit	Small and large bowel clearance using sequential images over 5 days.
Lacrimal Scan	Functional nasolacrimal duct obstruction.

## NUCLEAR MEDICINE THERAPY

Radioactive iodine (I-131)	Treatment of hyperthyroidism.
Samarium-153, Strontium-90	Palliative treatment of painful osteoblastic bone metastases. (Can only be prescribed by a specialist)
Phosphorus-32	Polycythaemia rubra vera and essential thrombocythaemia (Can only be prescribed by a specialist)

## Patient Preparation

- Bone Scan - well hydrated. Images performed 2-3 hours after injection and take up to 1 hour.
- Myocardial perfusion scan (thallium, sestamibi)- fast for 3 hours after a light breakfast, then have clear fluids sparingly. No tea or coffee for 24 hours. Omit betablockers for at least 24 hours. More detailed written information is provided.
- Biliary Scans (HIDA, HIDA/CCK) fast for 4 hours.
- Gastric emptying - fast 8 hours.
- Renal Scans - well hydrated. If renal artery stenosis is being assessed ACE inhibitors need to be reviewed.
- Most other procedures have no special preparation.