

RAS 6083

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NUCLEAR MEDICINE STATUS IN MYANMAR





Myanmar

Happiness and Prosperity by Unity

55 million Population

24th most populous country on earth

15 Provinces

Capital : Naypyidaw

Currency : Kyat (MMK)

Languages : Burmese

ASIA



NUCLEAR MEDICINE DEPARTMENTS IN MYANMAR

- Yangon General Hospital (YGH)
- Mandalay General Hospital (MDY)
- Naypyitaw General Hospital (NPT)
- North Okkalapa General Hospital (NOGH)



Referral system

- Patients from Township health center
- Medical Units
- ENT, Endocrine Clinic, Surgical Units, Radiation Oncology Department , Medical oncology Department
- Pediatric Hospital
- O&G Units
- Orthopedic Hospital
- PMR Department
- Private Hospital and Clinic

NUCLEAR MEDICINE STAFF

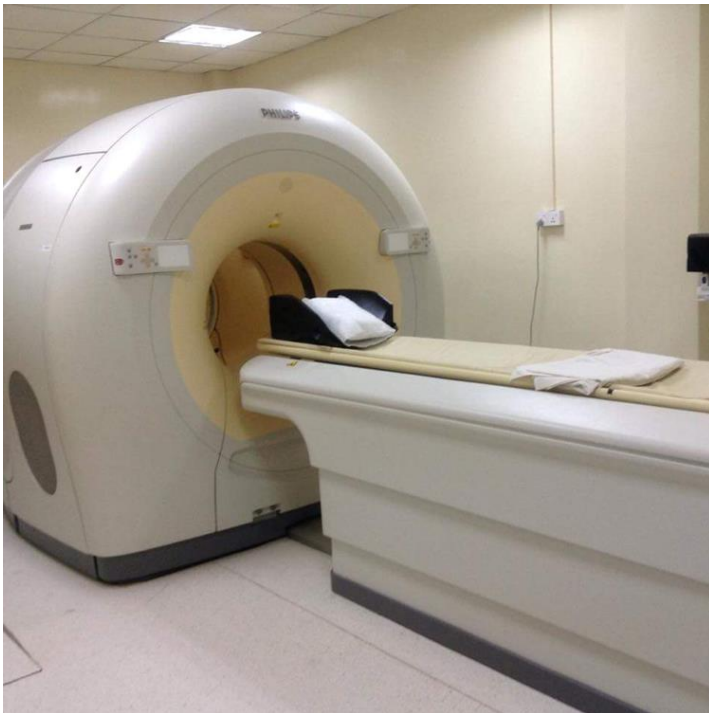
	YGH	MDY	NPT	NOGH
Physician	5	1	1	2
Physician in training	11			
Physicist	3	1		
Radio pharmacist	2			
Technologists In-vivo	8	6	1	1
Technologists In-vitro	1	2		

EQUIPMENTS IN DEPARTMENTS

NO	EQUIPMENTS	YGH	MDY	NPT	NOGH
1	SPECT Gamma Camera	1		1	
2	SPET/CT	1	1	1	1
3	PET/CT	1			
4	Thyroid uptake unit	1	1		
5	Gamma Counter for RIA and Laboratory Equipment	1	1	1	1*
6	Cyclotron	1*			
7	Hot lab	1	1	1	
8	Computer network system	1	1		

YGH

- PETCT



- SPECT Gamma Camera



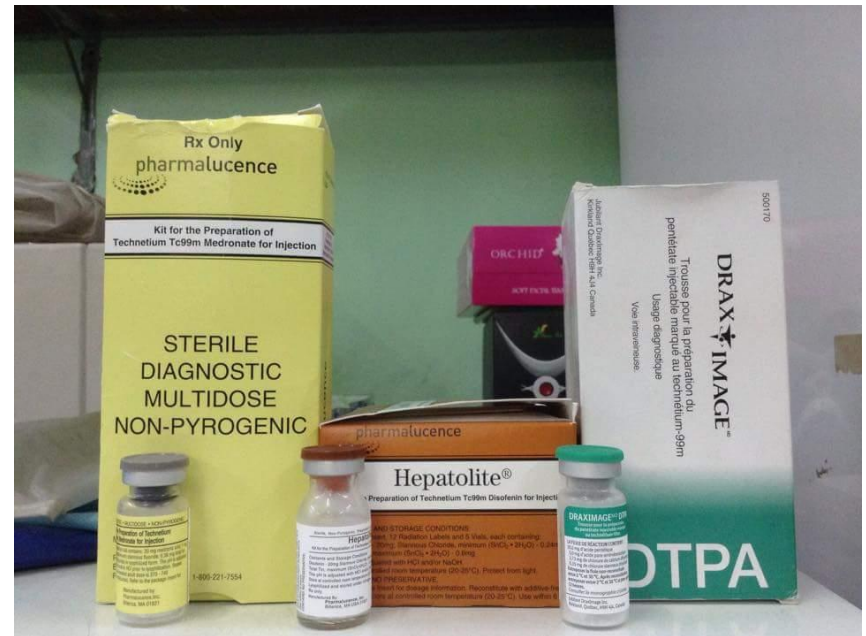
PETCT AND CYCLOTRON



SPECT CT Cameras

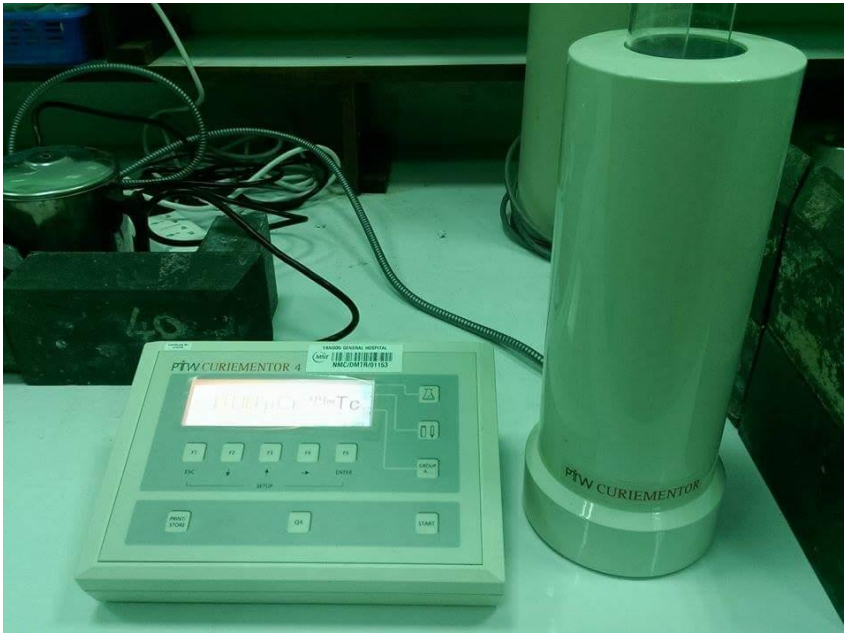


GENERATOR AND COLD KITS



HOT LAB AND DOSE CALIBRATOR

(Fume Hoods for ^{131}I solution and $^{99\text{m}}\text{Tc}$ generator)



CLINICAL SERVICES

NO	SERVICES	YGH	MDY	NPT	NOGH
1	Out-patients clinic	Average 2300 pts/month	Average 550 pts/month	Average 100 pts/month	50-80 pts/month
2	SPECT imaging	Average 280 pts/month	Average 80 pts/month	Average 30 pts/month	Average 15-30 pts/month
3	RIA - patient	Average 550 pts/month	Average 100 pts/month		
4	I-131 therapy	Average 20 pts/month	Average 23 pts/month	Average 5 pts/month	
5	PET scan	Average 20-30 pts/month			

ROUTINE NUCLEAR MEDICINE SCAN

NO	TYPE OF SCAN	Numbers of scan per MONTH
1	ENDROCRINE- THYROID SCAN (99mTc or 131I)/PARATHYROID	90-100 (2800)
2	BONE SCAN	100 -120 (1697)
3	CARDIAC SCAN	12-20 (178)
4	RENOGRAM (DTPA and DMSA)	20-60 (713)
5	GASTEROINTESTINAL	2-10 (247)* YGH
6	MISCELLANEOUS	3- 5 (79) *MGH+YGH
7	PET SCAN	20-30 (211) *YGH

TRAINING PROGRAMM IN NUCLEAR MEDICINE

NO	PROGRAMM	DURATION	RESIDENTS NO.
1	M.MED.SC NUCLEAR MEDICINE TRAINING PROGRAM	3 YEARS	11

Radiopharmaceutical Availability

- Tc Generator and ^{131}I - monthly order
- once in 3 week (YGH)
- Cold kits -6 monthly order
- ^{18}F FDG -In house cyclotron production (*
only YGH)

- All equipment and radiopharmaceutical supported by Ministry of Health and Sports Budgets
- ^{18}F FDG -in house production since May 2016

SWOT ANALYSIS

Strength

- Role of nuclear Medicine in patient care and management
- Strong academic and political linkages with other specialties and Government committees
- Education of referrers – engagement in multidisciplinary meetings

SWOT ANALYSIS

Weakness

- No regulatory law
- Solely depend on government budget
- Import generators and radiopharmaceuticals –cold kits from abroad
- Lack of electronic medical record system which makes patient recording and tracing inefficient
- Lack of PACS (Picture Achieving and Communication System)
- Shortage of human resource and instruments-hot lab
- Training for human resources

SWOT ANALYSIS

Opportunity

- Up gradation and improvements of protocol thus improving quality of scan
- Expansion of radionuclide therapy
- Initiating more research work

SWOT ANALYSIS

Threats

- More people go abroad for medical treatment
- Radiopharmaceuticals and NM machine more expensive
- Absence of health insurance system

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Challenges	Weakness	Assistance	Captive audience
Role of nuclear Medicine in patient care and management	<ul style="list-style-type: none">-No regulatory law-Solely depend on government budget-Import generators and radiopharmaceuticals–cold kits from abroad-Shortage of human resource and instruments-hot lab-Training for human resources	Expert mission for training of human resources Cardiology and application of PET/CT	Nuclear medicine personal 60 (plan to invite referring physician, radiologist and radiation oncologist and medical oncologist) - 200

Activities

- Share experience among nuclear medicine colleagues
- Library
- DATOL
- Share and advertise other medical personals
- Promote role of nuclear medicine
- QUANUM
- RAS 6083 Expert mission
- Regional and national activities
- Myanmar Nuclear Medicine Society

Activity No	Activity	Schedule & Venue (2017)	Topic, objective, expected outcome
Activity 1	Plan to host Regional training course RAS 6071	August/September	TBD
Activity 2	National Workshop	November/December	Nuclear Medicine Educational Workshop
Activity 3	MOU between Osaka university and MNMS		-MOU and plan to deliver program called “eZIS” to Nuclear Medicine Departments -technical Visit to Osaka University for eZIS
Activity4	MOU between Chonan National University and Ministry of Health and sports		- PhD program in Chonnam University Hwasun Hospital ,Gwanju, Korea for young Nuclear Medicine Physicians
Activity 5	Radionuclide therapy		-Oncology



THANK YOU

