BNMS Annual Survey

Paul Hinton

BNMS Professional Standards Committee
Royal Surrey County Hospital



Introduction

- Previous Surveys
 - Methods, Data, Metrics
- Current Survey
 - Aims, Response
- Analysis
 - Equipment
 - Workforce
 - Workload
- Conclusions
- Future work



Why Survey?

- Numbers and types of studies
- Staffing levels
- Equipment status



Previous Surveys

Previous surveys in 1990, 2003 and 2007

Year	1990	2003	2007
Who	BNMS/IPEM	HPA/BNMS/IPEM	BNMS
Method	Postal survey	Email survey	Email survey
Response	160/296 (55%)	159/240 (66%)	165/216 (76%)
Metrics			
Estimated Total Studies (UK)	430,000	670,000	630,000
Gamma cameras	256	267	299
Gamma cameras per site	1.6	1.7	1.8
Average gamma camera age	6.1	7.3	
Studies per department			3527
Studies per 1000 population	7.6	11	



Survey Problems

- Large amounts of effort
- Response rate
- Different questioners and questions
- Different responders



Current Survey

Aims

- Reach all UK departments
- Web based
- Consistent data
- Collect data annually



Current Survey - Aims Reach all departments

IOP Publishing | Society for Radiological Protection

Journal of Radiological Protection

J. Radiol. Prot. 36 (2016) 363-381

Adapting clinical gamma cameras for body monitoring in the event of a large-scale radiological incident

J W Scuffham^{1,2}, M Yip-Braidley^{2,4}, A L Shutt³, P J Hinton¹, A Nisbet^{1,2} and D A Bradley²



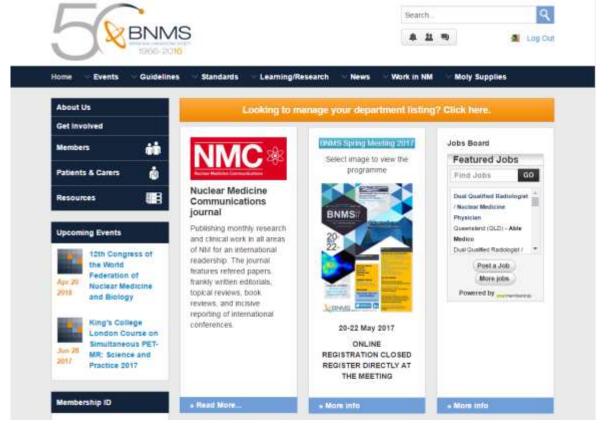
Department of Medical Physics, Royal Surrey County Hospital NHS Foundation Trust, Guildford, UK

² Faculty of Engineering and Physical Sciences, University of Surrey, Guildford, UK

³ Centre for Radiation, Chemical and Environmental Hazards, Public Health England (PHE), Chilton, UK

Current Survey - Aims

Web based





Current Survey Aims

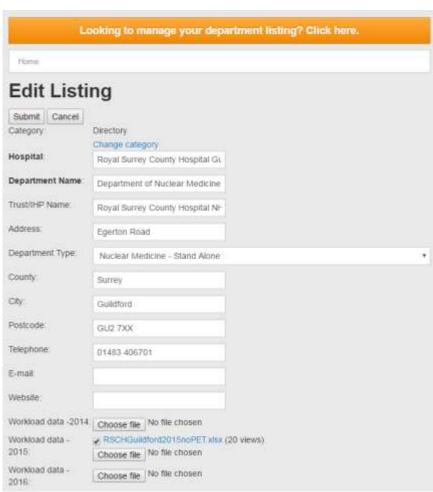
Consistent data

Active Contact Information



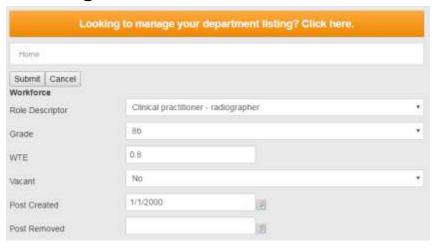
Site Information



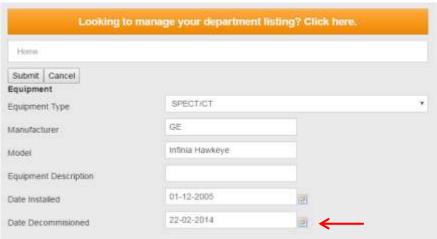


Current Survey Aims Consistent data

Staffing



Equipment





Current Survey Aims

Collect data annually

Once baseline data is on the website annual updates become simple



Edit equipment, staff and workforce changes and upload latest workload data

```
Workload data -2014: Choose file No file chosen

Workload data -

2015: RSCHGuildford2015noPET.xlsx (20 views)

Choose file No file chosen

Workload data -

2016: Choose file No file chosen
```



Current Survey

Response

BNMS database

444 sites348 NM and PET sites96 Radiopharmacy sites

BNMS active contacts

323 sites

245 NM and PET sites

78 Radiopharmacy sites

Response

323 sites 130/245 (53%) NM and PET sites 35/78 (45%) Radiopharmacy sites



Analysis - Equipment

Equipment Data - 141 sites

Site_ID	Beta Counter	Gamma Counter	Gamma Probe	Non SPECT gamma camera	SPECT gamma camera	SPECT/CT	PET/CT	PET/MR	Radionuclide Calibrator	Thyroid Counter	Whole Body Counter
1322		2				1			1	1	
1325							1				
1330						2					
1331		1	1		1				2		
1444					1						
1342						1					
1346					1				1		
1348					1						
1349			2		1				1		
1351					1						
Total	2	35	52	21	111	120	37	2	121	1	2
Sites	2	27	27	21	79	77	28	2	43	1	2

252 gamma cameras at 177 sites (1.4 GC per site) ←



Analysis - Equipment

Average Equipment Age – 141 sites

Equipment Type	Number	Average Age (y)
Beta Counter	2	14.5
Gamma Counter	35	13.4
Gamma Probe	52	7.8
Non SPECT gamma camera	21	10.8
SPECT gamma camera	111	10.4
SPECT/CT	120	6.8
PET/CT	37	4.9
PET/MR	2	4.6
Radionuclide Calibrator	123	10.5
Thyroid Counter	1	20.9
Whole Body Counter	3	13.8



Analysis - Equipment

Radiopharmacy – 21 sites

Site_ID	Gamma Counter	HPLC	Incubator	Isolator	Laminar Flow Cabinet	Radiochro matogram Scanner	Radionuclide Calibrator
1361				1			1
1365				2			3
1384				2			1
1387		1	1	1	1	1	
1392				2			
1400	1			1			4
1364				2		1	4
1410		1		4		1	1
1416					1		1
1438	1			2	1		2
1441	1				1		1
1449				1			1
Total	9	2	1	31	12	3	35



Nuclear Medicine Staffing 141 sites

Site_ID	HCA / imaging assistant	Admin/ clerical	Clinical practitioner - radiographer	Clinical practitioner - technologist	Clinical scientist	Nurse	Physician	Radiologist	Grand Total
1012		2.2	2.8	7	4				16
1123	2.1	2.2	1.8	8	4	0.6			18.7
1309		1	4.76						5.76
1017	1			4	0.2			0.5	5.7
1020			4						4
1333			1.83	0.21					2.04
1341				2					2
1342	1		2.4	1				0.1	4.5
1346	1		2						3
1348			3.1						3.1
1349			1.7		0.3			0.8	2.8
1351			2	1	0.1			0.2	3.3
Totals	73.0	151.3	279.6	367.9	182.3	46.8	43.4	52.2	1196.5



Radiopharmacy – 19 sites

Site_ID	Admin/ clerical	Clinical practitioner radiographer	Clinical practitioner technologist	Clinical scientist	HCA / imaging assistant	Radio- chemist	Radio- pharmacist	Radio- pharmacy Technologist	Grand Total
1357							0.74	0.77	1.51
1362	0.4			1		1	1	5	8.4
1366			0.77	0.13					0.9
1367			0.74	0.13					0.87
1384				1				2	3
1392				0.3	1.25		0.05	1.7	3.3
1400			0.75	0.3					1.05
1424			0.9	0.3					1.2
1438			0.74	0.13					0.87
1441							0.9	1.58	2.48
1445							1		1
1449							0.5		0.5
Total	0.4	1.6	6.7	6.29	1.25	1	10.19	23.27	50.7



National Data - Electronic Staff Record

Suggested Area of Work Choices Covering Healthcare Science Specialisms:

J		Life Se	iences			Physiological Sciences		Physical Sciences & Biomedical Engineering		
	Blood Sciences	Infection Sciences	Cellulai Sciences	Genetics	Cardisc, Vaccular, Respiratory and Sleep Sciences	Neurosenzory Sciences	Gastrointestinal and Undynamic Sciences	Medical Physics	Clinical Engineering	
	U'A	urn	erc	U'D	UT	UF	urg	9791	0.7	
	Blood Transhusion Clinical Biochemistry Havenatologic Haviscompatibility and Immunologic Instrumologic Philabotomy Point of Care Testing Blood Sciences Testioologic Pathology	Medical Microbiology Medical Visiogy Intection Sciences Participa	Anatomical Pathology Cendral Cynology Cytopathology Electron Microscopy Hartopathology Reproductive Science Tissue Banking Celular Sciences Pathology	Clinical Genesics Earthcloge	Autonomic Science Cardiac Physiology Clinical Perfusion Critical Care Respirators Physiology Sleep Physiology Vascular Science Cardiac Vascular, Respiratory and Sleep Sciences	Audological Science Neurophysiology Ophthalmic and Vision Science Neurosensory Sciences	Gamoinestinal Physiology Unodynamics Gamoinestinal and Unodynamic Sciences	Angiography Execut Sciencing Circical Radiology CT Disgnoritic and Institutional Radiology Disgnoritic and Institutional Radiology Imaging Mammography Medical Burnation MRI Non-isnaing Radiation Nucleor Nedicine Radionin	Clinical Measurement Medical Equipment Management Management Medical Engineering Design Fladuation Engineering Rehabilitation Engineering Renal Tachnologic Clinical Engineering	



National Data - Electronic Staff Record

Occupation Code Level	Job Level	Typical Entry Level Qualification	Example Job Titles
UA*	Consultant Healthcare Scientist	NHS Higher Specialist Scientific Training (HSST)	Consultant Clinical Scientist
U0*	Manager (See notes 1-3)	Scientific Qualification (+ management responsibility for a significant area of healthcare science)	Manager
U1*	Specialist Healthcare Scientist	Accredited Scientific Practice (AESP)	N/A
U2*	Healthcare Scientist	Masters degree + Certification of work based competence	Clinical Scientist
U3*	Specialist Healthcare Science Practitioner	Accredited Scientific Practice (ASSP), Masters modules or Masters Degree or equivalent	Advanced Practitioner Biomedical Scientist, Perfusionist
U4*	Healthcare Science Practitioner	Undergraduate degree + Certification of work based competence	Biomedical Scientist, Technician, Clinical Physiologist, Clinical Technologist
U5*	Healthcare Science Associate	Foundation Degree or equivalent	Assistant Practitioner, Cytoscreener, Technician / Technologist in Anatomical Pathology, Clinical Biochemistry, Haematology
U6*	Trainee Healthcare Scientist	Relevant undergraduate degree or equivalent	N/A
U7*	Trainee Healthcare Science Practitioner	A-levels or equivalent (entry to undergraduate)	N/A
U8*	Trainee Healthcare Science Associate	Sufficient to enter Foundation Degree	N/A
U9*	Healthcare Science Assistant	Various e.g. Apprenticeship	Assistant, Cardiographer, MLA, Phlebotomist



National Data - Electronic Staff Record - RSCH

SBU	Role	Occupation Code	Position Title	FTE
Medical Physics	Healthcare Scientist	U2H	Clinical Scientist (Nuclear Medicine)	1.00
Medical Physics	Specialist Healthcare Scientist	U1H	Clinical Scientist (Nuclear Medicine)	.80
Medical Physics	Consultant Healthcare Scientist	UAH	Nuclear Medicine Physicist	1.00
Medical Physics	Specialist Healthcare Scientist	U1H	Clinical Scientist (Nuclear Medicine)	1.00
Medical Physics	Clerical Worker	G2C	Administration Manager Band 4	1.00
Medical Physics	Specialist Healthcare Scientist	U1H	Clinical Scientist (Nuclear Medicine)	1.00
Medical Physics	Healthcare Scientist	U2H	Clinical Scientist (Nuclear Medicine)	1.00
Nuclear Medicine	Consultant	016	Consultant Nuclear Medicine	1.00
Nuclear Medicine	Radiographer - Diagnostic, Manager	S1F	Nuclear Medicine Patient Services Manager	.86
Nuclear Medicine	Radiographer - Therapeutic	S1F	Deputy Clinical Services Manager	1.00
Nuclear Medicine	Clerical Worker	G2C	Administrator	.27
Nuclear Medicine	Helper/Assistant	S9X	Imaging Department Assistant	1.00
Nuclear Medicine	Clerical Worker	G2D	Receptionist & Secretary Nuclear Medicine	.54
Nuclear Medicine	Radiographer - Therapeutic	S1F	Advanced Practitioner Band 7	1.00
Nuclear Medicine	Helper/Assistant	S5X	Assistant Practitioner	.80
Nuclear Medicine	Clerical Worker	G2C	Administration Manager Band 3	.60
Nuclear Medicine	Radiographer - Therapeutic	S1F	Advanced Practitioner Band 7	1.00
Nuclear Medicine	Clerical Worker	G2D	Receptionist & Secretary Nuclear Medicine	.47



National Data - Electronic Staff Record

(HS Hospital & Community Health Service (HCHS) monthly workforce statistics - Provis Scientific, therapeutic & technical staff and Support to scientific, therapeutic & technic			ups, Area	and Leve	et - Full Tie	me Equivo	ilent					NH.	5
taff in Trusts and CCGs												Dinis	101
etum to contenta												Digit	lai
ource: Provisional NHS Hospital & Community Health Service (HCHS) monthly worldorce	statistics	NHS Dig	ital										
opyright © 2017, Health and Social Care information Centre. The Health and Social Care	Informati	on Centre	is a non-	departmen	ntal body	created by	statute, a	ilao know	n as NHS	Digital			
um of Total FTI taff Group 2 * Area * Level		Apr-15	No. 45	lun 4E	but 46	Aug-15	San 45	Doi: 45	Non-45	Day 45	ton 16	Feb-16	Mar-1
017 Scientific, therapeutic & technical staff						126,352			128,870		128,786		10400
#018_Affied health professions		61,208		60,901			62,341						
≅ 019_Healthcare scientists		23,223	23,174	23,199	23,221	23,239	23,378	23,393	23,448	23,419	23,444	23,541	23,55
⊞ 023_Nuclear Medicine & Clagnostic Radiology	110204	18	16	17	17	- 11	13	11	10	8	. 9	. 9	
007_Consultant Clinical Scientist (Gradi	# C):	7	7	7	7	3	4	- 6	- 5	5	- 6	. 6	
009 Clinical Scientist (Grade A & B)		- 3	2	- 2	- 1	- 13	- 1	0 2	0	0	0	0	
912_MTO / Technician		8	5	0	6		5	4	4	3	3	3	
9 020 Other scientific, therapeutic & technical staff		41,629	41,219	41,295	41,276	41,547	42,203	42,523	42,806	42,767	42,835	43,118	43,0
#010_Multi-therapies		833	816	840	830	807	826	828	838	855	784	831	. 8
# 011_Clinical psychology		6,979	6,750	6,756	5,689	5,631	5,690	6,896	6,949	6,922	6,955	6,943	
# 012_Psychotherapy		3.605	3.584	3,585	3,660	3,706	3,805	3,868	3,928	3,925	3,950	4,009	4.01
#014_Pharmacy		14,591	14,511	14,497	14,541	14,832	15,073	15,057	15,117	15,066	15,111	15,201	15,17
#016_Dental		3,084	3.076	3,101	3,100	3,107	3,126	3,147	3,166	3,161	3,173	3,245	3,24
# 018_Operating theatres		7,321	7,281	7,270	7,220	7,229	7.351	7,419	7,385	7,332	7,333	7,295	7,35
# D19_Bodial Services		1,811	1,820	1,823	1,812	1,826	1,885	1,871	1,916	1,968	1,984	2,010	
■ 020_Other ST&T staff		3.406	3,381	3,421	3,424	3,411	3,446	3,437	3,508	3,536	3,546	3,583	3,58
901_Consultant Therapist / Scientist		9	10	10	8	8	8	9	10	9	9	. 8	
002_Other ST&T Manager		80	80	83	91	92	97	100	105	105	101	100	10
003_Therapist		1,611	1,600	1,612	1,627	1,613	1,630	1,630	1,655	1,675	1,682	1,681	1,6
004_Scientist		139	135	138	133	138	139	130	134	141	148	154	13
005_Scientific Officer		44	44	42	44		43	41	39	40	39	38	
006_Technician		1.223	1,224	1,239	1,223	1,224	1,234	1,235	1,262	1,286	1,266	1,298	1,30
007_Instructor / Teacher : 008_Tutor		257 41	249 40	255 43	255 43	249 42	251 43	251 42	260 43	255 45	261 39	267 40	28
032_Support to ST&T staff		51,859	51,836	52,166	52,189	52,080	52,558	52,721	53,113	52,913	53,319	53,462	53,60
⊕034 Support to healthcare scientists		14,360	14,376	14,453	14,508	14,460	14,579	14,673	14,850	14,765	14,841	14,977	14,95
# 023_Nuclear Medicine & Diagnostic Radiology		14	12	6	6	4	4	5	4	4	4	4	200
006_MLA/ATO/Assistant		8	6	0	0	0	0	0	0	0	. 0	. 0	
007_Assistant Practmoner		3	3	3	3	3	3	4	3	3	3	3	
908_Trainee / Student		3	3	3	3	1	- 1	1	1	1	1	1	
M. Title sheet Nurses and Midwives Ambulance S T and T / Infra Suppo	int Det	n PJ				114					- 0		



National Data - Electronic Staff Record		Staff within Medical Physics with a Tertiary Area of Work	Staff not within Medical Physics with a Tertiary Area of Work
	Total	'Nuclear Medicine'	'Nuclear Medicine'
Qualified Healthcare Scientists with a Tertiary Area of Work 'Nuclear Medicine'	531	517	14
Consultant Healthcare Scientist	47	46	1
Healthcare Scientist Manager	16	13	3
Specialist Healthcare Scientist	55	53	2
Healthcare Scientist	82	80	2
Specialist Healthcare Science Practitioner	85	85	-
Healthcare Science Practitioner	243	241	3
MTO / Technician ¹	3	-	3
Support staff to Healthcare Scientists with a Tertiary Area of Work 'Nuclear			_
Medicine'	77	74	3
Healthcare Science Associate	23	23	-
Trainee Healthcare Scientist	11	11	-
Trainee Healthcare Science Practitioner	15	14	1
Trainee Healthcare Science Associate	1	1	-
Healthcare Science Assistant	27	25	3

Notes:

Please note there is no direct mapping between the now closed T matrix codes and the U matrix codes



¹ In 2013 as part of the Modernising Scientific Careers (MSC) programme, the Occupation Codes for Healthcare Scientists were updated and a new U matrix was developed to replace the T matrix.

Analysis - Workload Coding

- Workload data is uploaded by sites
- Requested national codes be submitted
- Data received in large array of formats



Coding

From

INVBN DYN/SPOTS	2
INVBN DYN/WBDY/SPOTS	25
INVBN FEET	1
INVBN HI DY/WBDY/SPTS/SPET/CT	6
INVBN HI DYN/SPTS/SPET/CT	189
INVBN HI WBDY/SPOTS/SPET/CT	1
INVBN HI WBODY/SPET/CT	933
INVBN WBDY/SPOTS	12
INVBN WBDY	927
INVBR DATSCAN SPET/CT	370
INVBR ICTAL HMPAO SPET/CT	40
INVBR INTERICTAL HMPAO SPET/CT	15
INVCA DPD CARDIAC AMYLOID WBDY	30
INVCA MIBG CARDIAC SPOT + SPET	4
INVCA MIBI 1-DAY GATED	413
INVCA MIBI 1-DAY HI GATED	23
INVCA MIBI 2-DAY	720
INVCA MIBI HI 2-DAY GATED	1100
INVCA MIBI REST GATED	3
INVCA MUGA	561
INVCA MUGA + LPO	1

to

NDYBW	2
NBLPL	26
NBLSO	195
NBONW	1873
NSKIO	370
NMISCO	55
NMISC	40
NMMPR	1159
NMMPS	1536
NRVEN	562
NM1230	2
NPTHYO	81
NTHTC	72
NGIBS	4
NSGES	136
NMECK	13
NHEBI	12
NWCHMO	2
NWIND	1
NLUNV	92
NLYMP	29



Coding - New NICIP codes were issued April 2017





Main Menu > Supporting Information Menu > Coding and Classifications Menu >

Search:

Coding and Classifications Menu

Clinical Coding Introduction

European Dialysis and Transplant Association Coding Scheme International Classification of

Diseases International Classification of

Diseases for Oncology National Interim Clinical Imaging Procedure Code Set

NHS dictionary of medicines and devices OPCS Classification of

Interventions and Procedures Read Coded Clinical Terms

SNOMED CT

Accident and Emergency Coding Tables

Accident and Emergency Diagnosis Tables Accident and Emergency Investigation Table

Accident and Emergency Treatment Tables

National Interim Clinical Imaging Procedure (NICIP) Code Set

Related DDCN/DSCN/ISN

The National Interim Clinical Imaging Procedure Code Set (NICIP Code Set) is a comprehensive national standard set of codes and descriptions for imaging procedures and is maintained by the UK Terminology Centre. It is intended for use in all Imaging Department information systems.

The NICIP Code Set was approved by the Information Standards Board for Health and Social Care (ISB) and is mandated for all in-scope use cases. Further detail about the initial information standard and subsequent amendments can be found on the Information Standards Board for Health and Social Care website at; ISB 0148 "Interim Clinical Imaging Procedure Codes".

The NICIP Code Set is released biannually. The release dates are the 1st of April and the 1st of October each year.

All versions of the NICIP Code Set, both with and without SNOMED CT maps, are only available from the Technology Reference Data Update Distribution (TRUD).

Clinicians and system managers working with the Picture Archiving and Communication Systems (PACS) and Radiology Information Systems (RIS) can make requests for additions to the NICIP Code Set, All requests must first be checked for conformance to the Editorial Principles.

Requests for changes to the NICIP Code Set should be made via the Information Standards Service Desk and clearly marked "Diagnostic Imaging."

For further information on the National Interim Clinical Imaging Procedure Code Set, see the NMS Digital website at: National Interim Clinical Imaging Procedure (NICIP) Code Set,





Analysis - Workload Coding

- >350 codes relevant to NM
- Codes for individual planar, SPECT and CT or combinations
- NM sites are coding study visits completely differently
- BNMS need to produce guidance



Workload Data – 100 sites 350 codes

Code	Description	Aberdeen	Aintree	AML	Barnsley	Basildon
NMISC	Infrequent planar scans or unknown code	1	13	0	2	0
N123W	NM lodine 123 whole body	0	0	0	1	0
N123WO	NM lodine 123 whole body SPECT	0	0	0	0	0
N131W	NM lodine 131 whole body	0	0	0	24	0
N131WO	NM lodine 131 whole body SPECT	19	0	0	0	0
N177SY	NM Lu177 somatostatin analogue scan	0	0	0	0	0
NAMYS	NM Amyloid study	0	0	0	0	0
NBLPL	NM Bone Local Planar	0	79	0	92	130
NBLDP	NM Blood pool scan	0	0	0	0	260
NBLSO	NM Bone Local SPECT	0	593	0	0	24
NSKIO	Brain dopamine transporter study I123	65	92	0	28	33
NBODW	NM Whole body SPECT	0	0	0	0	0
NBONW	NM Bone whole body	1617	352	0	323	660
NMISCO	Infrequent SPECT	0	0	0	0	0
NBPIMO	NM Brain perfusion imaging SPECT	281	0	0	0	0
NBREM	NM Bremsstrahlung imaging post therapy	0	0	0	0	0
NC123W	NM lodine 123 whole body SPECT CT	0	0	0	0	0
NC131W	NM Iodine 131 whole body SPECT CT	0	0	0	0	0
NCAIMC	NM Cardiac iodine 123 MIBG scan	0	0	0	0	0



Downfall

Where are the GFRs?

Code	Description	Number
NBONW	NM Bone whole body	61614
NCGENW	NM Whole body FDG PET CT	33521
NMMPS	NM MPS Stress	30391
NMMPR	NM MPS Rest	25031
NBMTF	NM Bone local lumbar spine SPECT	13506
NSENT	NM Sentinel node localisation & imaging	11860
NDMSA	NM Renal DMSA	10235
NBLPL	NM Bone Local Planar	8466
NRVEN	NM Cardiac ventriculography rest	7134
NREND	NM Renogram with diuretic	7021
NBLSO	NM Bone Local SPECT	6907
NSEBS	NM Radionuclide SeHCAT bile study	6210
NSLOC	NM Sentinel node probe localisation	5968
NCLAC	NM Lung ventilation and perfusion	5661
NSKIO	Brain dopamine transporter study I123	5301
NCHEQ	NM Lung perfusion scan Q	5231
NMISC	Infrequent planar scans or unknown code	5188
NMREN	NM Renogram	4381
NCHVQ	NM Lung ventilation and perfusion	4307
NDYBW	NM Bone dynamic	4223



National Workload Data





Dataset 2016-17 Data

Home > Statistics > Statistical work areas > Diagnostic Imaging Dataset > Diagnostic Imaging Dataset 2016-17 Data

Diagnostic Imaging Dataset 2016-17 Data

Background and Guidance

Background and guidance for this collection can be found here

Date of Next Publication

22nd June 2017

Statistical Commentary

5 Statistical Release 18th May (PDF 606KB)

Data

The following data relates to April 2016 – January 2017. New months' data will be appended to these files until all data for 2016-17 have been published.

Table 1a-1; 2016-17 Modality Provider Counts 2017-05-18 (XLSX, 263KB)

Table 2a-2j 2016-17 Modality Provider Medians Request To Test 2017-05-18 (XLSX, 242KB)



National Workload Data NM & PET 2015

CRIS long	Short	Count
NM Bone whole body	NBONW	100345
NM Whole body FDG PET CT	NCGENW	57175
NM Whole body PET FDG	NGENWO	27935
NM MPS Tf stress gated	NMTFS	20640
NM Sentinel node Loc and imaging	NSENT	19940
NM GFR estimation 3 and late sample	NGFR4	19610
NM MPS Tf rest gated	NMTRG	15560
NM Renal DMSA	NDMSA	15285
NM MPS MIBI stress gated	NMMSG	14570
NM Renogram with diuretic	NREND	12890
NM MPS MIBI rest gated	NMMRG	12680
NM Radionuclide SeHCAT bile study	NSEBS	11850
NM Cardiac myocardial perfusion scan	NCMPS	11735
NM Lung perfusion scan Q	NCHEQ	11730
NM Octreotide scan whole body	NOCTW	10800
NM Lung ventilation and perfusion	NCHVQ	8225
NM Renogram	NMREN	7880
NM Cardiac ventriculography rest	NRVEN	7330
NM Parathyroid MIBI	NPTHY	6290
NM Bone dynamic	NDYBW	6130
NM MPS Tf stress	NMSTT	5725



National Workload Data – PET 2015

CRIS long	Short	Count
NM Whole body FDG PET CT	NCGENW	57175
NM Whole body PET FDG	NGENWO	27935
Positron emission tomography with CT	NPET	3200
NM Cardiac rest PET NH3	NCNRNO	3000
NM F18 choline PET CT	NCPCH	980
NM Brain FDG PET CT	NCBRA	945
NM Cardiac stress PET Rb81	NCARSO	1705
NM Ga68 DOTATATE whole body PET CT	NCGDW	690
NM Head and neck PET CT FDG	NFDGH	515
NM Brain PET FDG	NBRAIO	505
NM Cardiac rest PET FDG	NCARDO	270
NM Choline whole body PET F18	NF18WO	245
NM F18 choline whole body PET CT	NCF18W	210
NM Cardiac rest gated FDG PET CT	NCCAG	130
NM Cardiac rest PET NH3	NCNRNO	95
NM Cardiac stress Rb81 PET CT	NCCAS	55
NM C11 choline PET CT	NCC11	45
NM Cardiac stress PET Rb82	NSRB82	40
NM Ga68 DOTATATE whole body PET	NGADWO	35
NM Ga68 DOTANOC PET CT whole body	NDTNW	35



National Workload Data Therapy 2015

CRIS long	Short	Count
NM Thyroid I131 thyrotoxicosis therapy	NT131Y	3265
NM Radium 223 therapy	NR223	1710
NM Thyroid I131 Carcinoma thyroid Abl	NC131Y	1165
NM Lu177 somatostatin analogue therapy	N177AY	445
NM Y90 Somatostatin analogue therapy	NY90AY	225
NM Rhenium-186 HEDP therapy	NR186Y	215
NM Hepatic microsphere therapy	NHEPMY	195
NM Radionuclide synovectomy	NSYNYY	110
NM Phosphorus 32 therapy	NPH32Y	70
NM lodine 131 MIBG therapy	NMIBGY	50
Fluoro Guid Pc hepatic Y90 microsphere	NY9HEY	5
NM Y90 antibody therapy	NY90TY	5
NM Strontium 89 therapy	NSR89Y	5
NM Samarium-153 EDTMP therapy	NS153Y	5



National Workload

Data Non-imaging

2015

CRIS long	Short	Count
NM GFR estimation 3 and late sample	NGFR4	19610
NM C13 urea breath test	NC13U	900
NM Thyroid uptake Iodine 131 no images	NTU13	570
NM Red cell mass and plasma volume	NRCPV	350
NM Red cell mass estimation	NRCME	260
NM C14 glychocholic breath test	NC14G	195
NM C14 urea breath test	NC14U	155



Conclusions

- Putting data onto the BNMS website is a worthwhile activity – please continue/start
- National data is still not correct and needs improving and verifying
- Coding of NM workload data and ESR data needs to be improved



Future Work

- Develop tools for analysis of data and write up analysis of 2015/16 data
- Choose new provider for BNMS website
- Populate with existing datasets
- Annual data update and analysis
- BNMS guidance on coding of NM scans
- Work with NHS Digital to improve and verify national data for workforce and workload
- Liaise with ARSAC on equipment data

