Guy's and St Thomas' NHS
NHS Foundation Trust

Clinical Coding – Opportunity Knocks

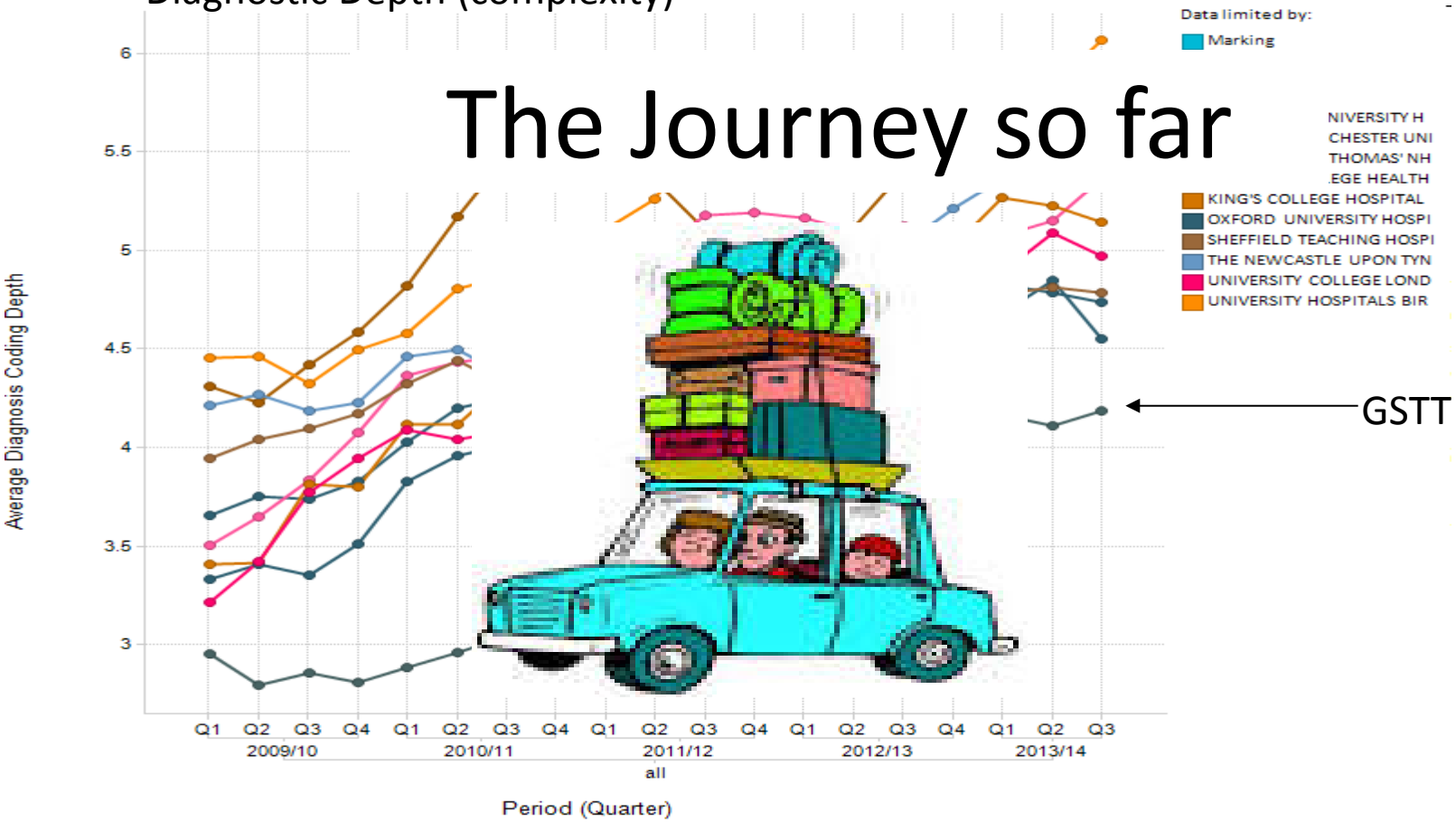
Dr Adrian Hopper – Deputy Medical Director

Carolyn Cooper – Head of Clinical Coding

Dr Caroline Spencer – Project nurse

Diagnostic Depth (complexity)

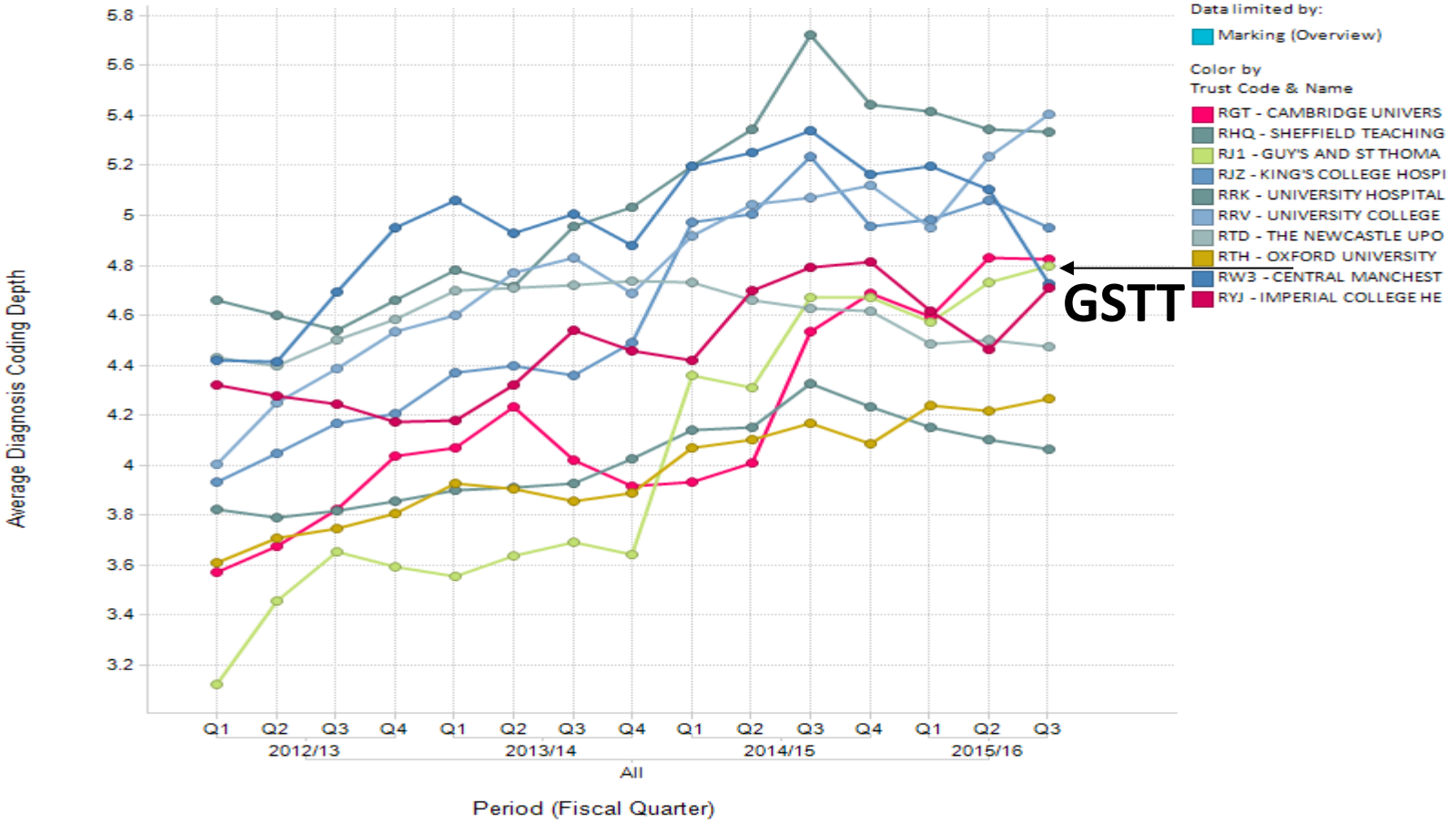
The Journey so far



How have we achieved this improvement

- Clinical involvement
- Focus on Mortality
- Identification of alternative information sources
  - Use of data bases
- Unlocking information from all staff Groups
  - Nursing staff
  - Allied Health Professionals
- Audit and Validation
- Training
- Restructure of the coding department

Diagnostic Depth (complexity) Updated



Clinicians are in the driving seat

The road ahead

Increased focus on coding as a tool for clinical improvement

Clinical investment in coded data

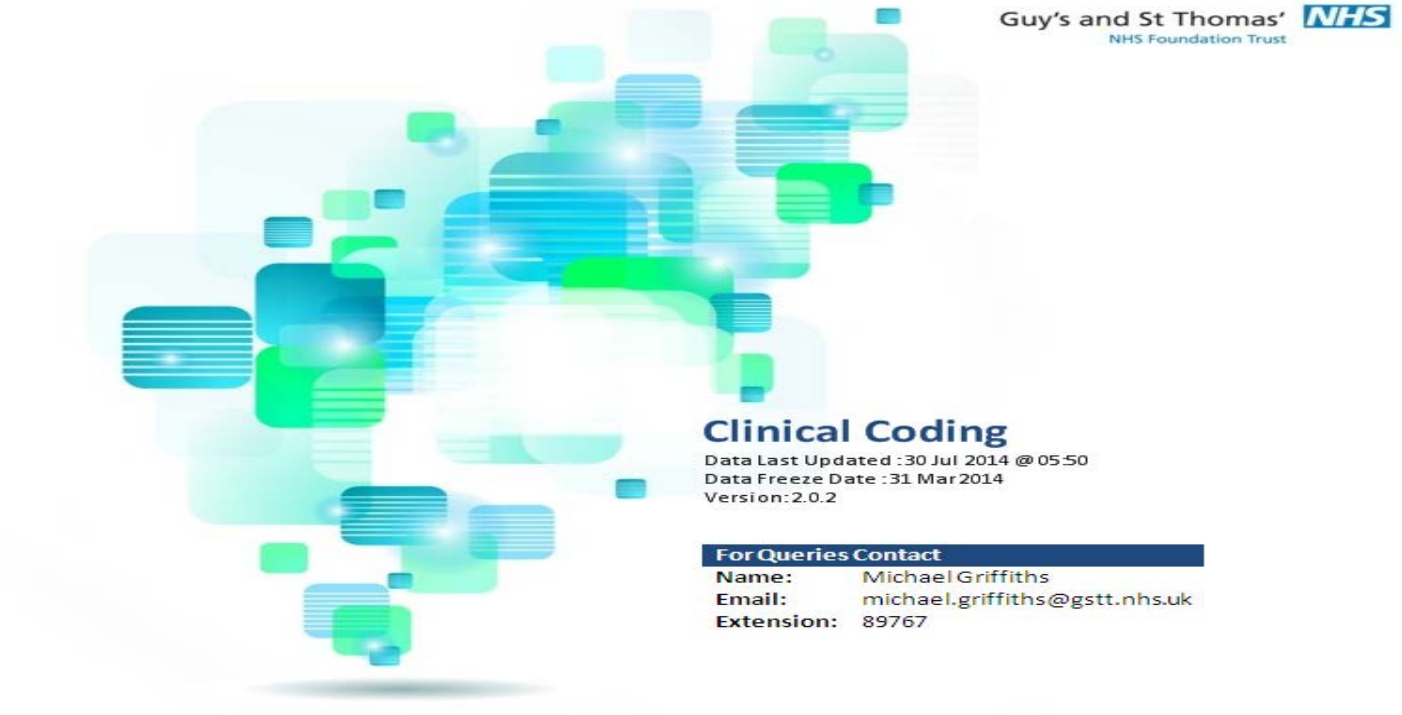
Digital coding – Coding utilising digital sources of information

Clinical investment in Coded data

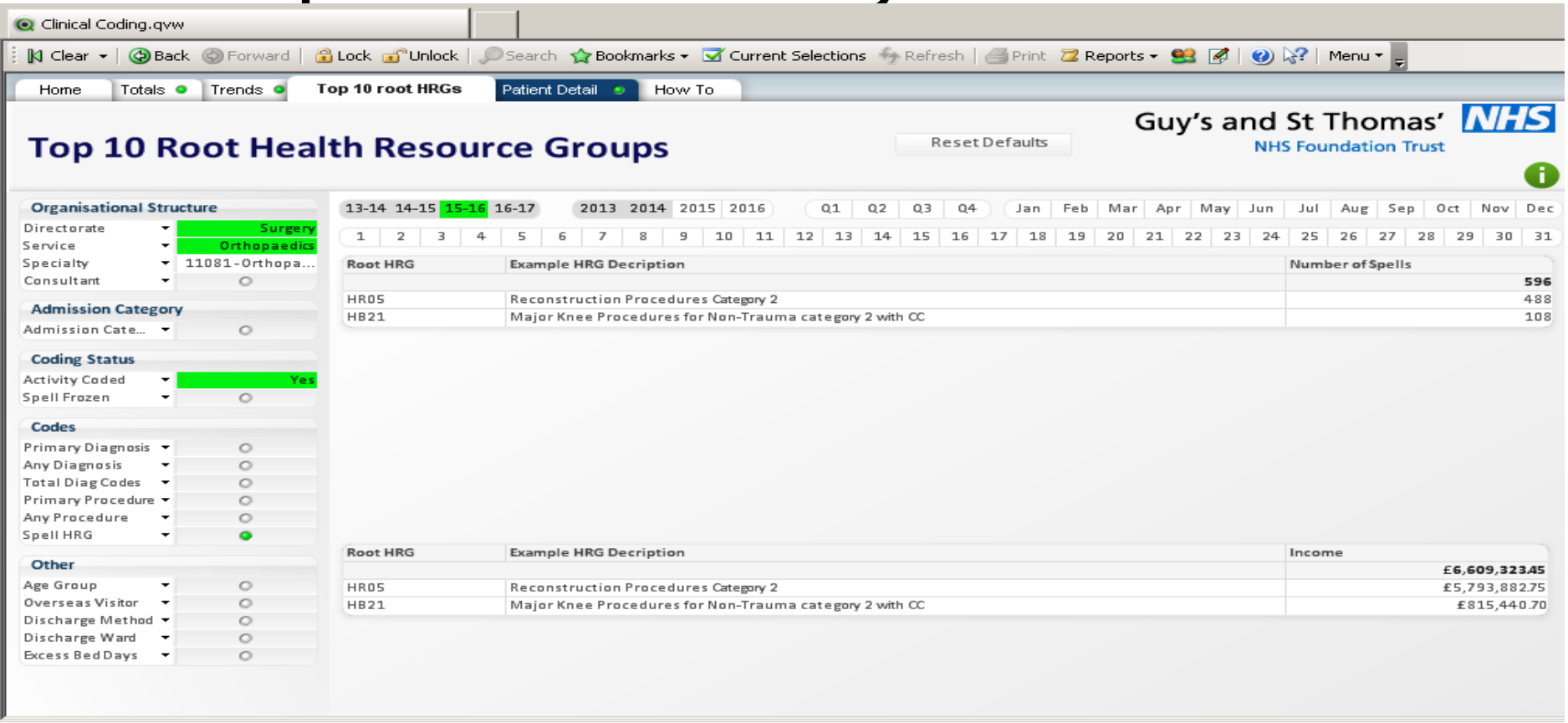
- Ownership of data – Qlikview
- Named coding lead in every specialty
- Validation meetings
- Trust and local inductions
- Regular attendance at specialty audit meetings
- Coding champion awards

Clinical ownership of Coded data

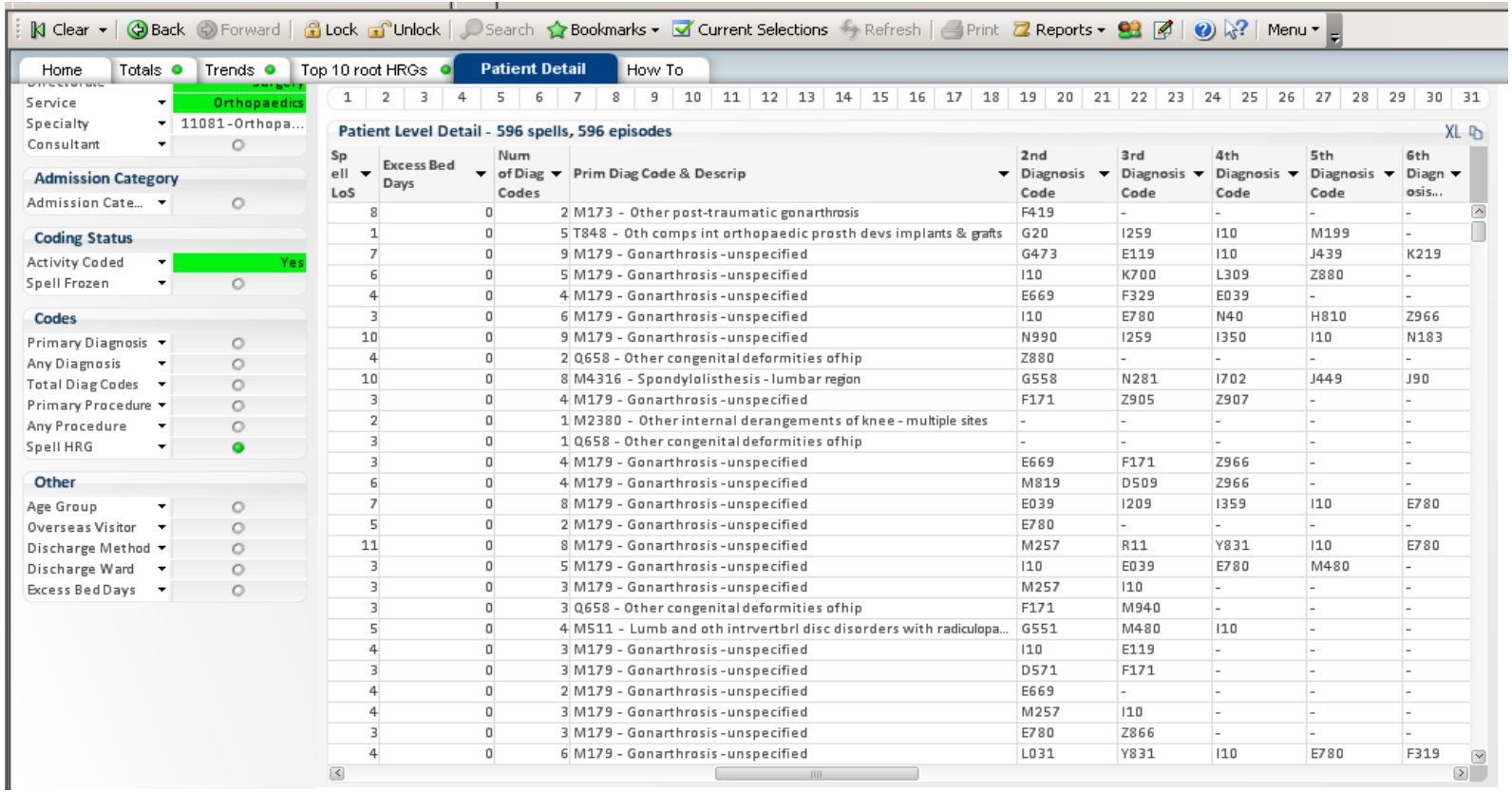
Coding at a click of a button



A snapshot of activity…



…Includes Patient level detail



Spell LoS	Excess Bed Days	Num of Diag Codes	Prim Diag Code & Descrip	2nd Diagnosis Code	3rd Diagnosis Code	4th Diagnosis Code	5th Diagnosis Code	6th Diagnosis...
8	0	2	M173 - Other post-traumatic gonarthrosis	F419	-	-	-	-
1	0	5	T848 - Oth comps int orthopaedic prosth devs implants & grafts	G20	I259	I10	M199	-
7	0	9	M179 - Gonarthrosis -unspecified	G473	E119	I10	J439	K219
6	0	5	M179 - Gonarthrosis -unspecified	I10	K700	L309	Z880	-
4	0	4	M179 - Gonarthrosis -unspecified	E669	F329	E039	-	-
3	0	6	M179 - Gonarthrosis -unspecified	I10	E780	N40	H810	Z966
10	0	9	M179 - Gonarthrosis -unspecified	N990	I259	I350	I10	N183
4	0	2	Q658 - Other congenital deformities of hip	Z880	-	-	-	-
10	0	8	M4316 - Spondylolisthesis - lumbar region	G558	N281	I702	J449	J90
3	0	4	M179 - Gonarthrosis -unspecified	F171	Z905	Z907	-	-
2	0	1	M2380 - Other internal derangements of knee - multiple sites	-	-	-	-	-
3	0	1	Q658 - Other congenital deformities of hip	-	-	-	-	-
3	0	4	M179 - Gonarthrosis -unspecified	E669	F171	Z966	-	-
6	0	4	M179 - Gonarthrosis -unspecified	M819	D509	Z966	-	-
7	0	8	M179 - Gonarthrosis -unspecified	E039	I209	I359	I10	E780
5	0	2	M179 - Gonarthrosis -unspecified	E780	-	-	-	-
11	0	8	M179 - Gonarthrosis -unspecified	M257	R11	Y831	I10	E780
3	0	5	M179 - Gonarthrosis -unspecified	I10	E039	E780	M480	-
3	0	3	M179 - Gonarthrosis -unspecified	M257	I10	-	-	-
3	0	3	Q658 - Other congenital deformities of hip	F171	M940	-	-	-
5	0	4	M511 - Lumb and oth intrvertbrl disc disorders with radiculopa...	G551	M480	I10	-	-
4	0	3	M179 - Gonarthrosis -unspecified	I10	E119	-	-	-
3	0	3	M179 - Gonarthrosis -unspecified	D571	F171	-	-	-
4	0	2	M179 - Gonarthrosis -unspecified	E669	-	-	-	-
4	0	3	M179 - Gonarthrosis -unspecified	M257	I10	-	-	-
3	0	3	M179 - Gonarthrosis -unspecified	E780	Z866	-	-	-
4	0	6	M179 - Gonarthrosis -unspecified	L031	Y831	I10	E780	F319

Increased focus on coding as a tool for clinical improvement

Use of the coded database to identify patients:

- Notification of specific groups of patients with upcoming admissions, eg learning disabilities
- High risk patient flags

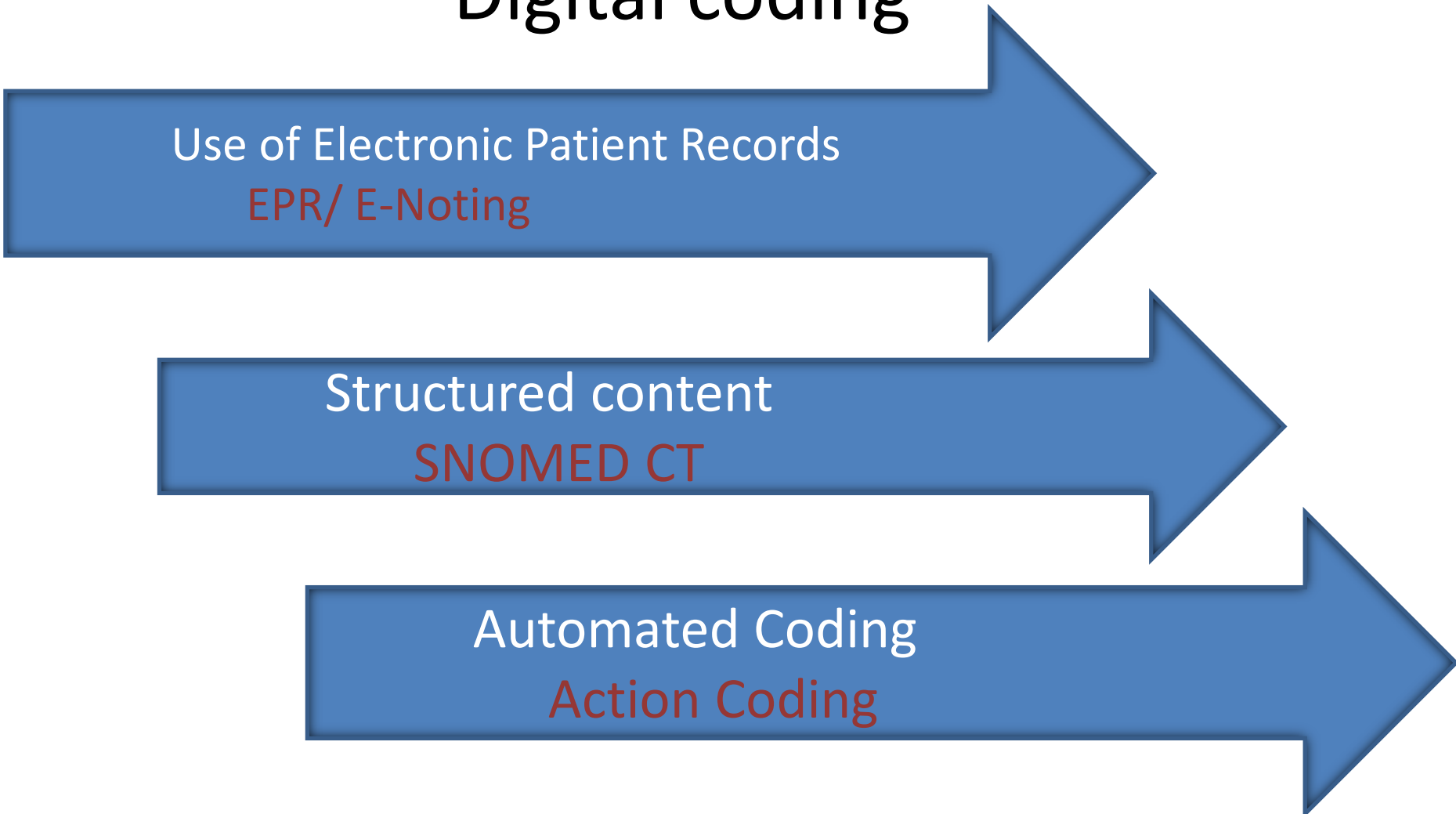
More reflection and learning from better recording:

- Sepsis
- Adverse incidents

If you do what you always did, you will get what you've always got

Henry Ford

Digital coding



Daily decisions recorded on EPR

Order a CT to identify type of Cerebral vascular accident

log mid stream urine sample for infective agent identification

Arrange Follow up in Hypertension

Start Sepsis bundle

A new approach to coding

Action Coding

Background diagnostic codes based on actions in EPR

- Orders – Sepsis bundles
- Diagnosis specific clinics – Falls clinic
- Alerts

Automated coding

- Retrospective

SNOMED CT
The global language of healthcare

The Future of Health Documentation?

Systematised Nomenclature of Medicine – Clinical terms

Over 2.5 million terms including:

87 entries returned[illegible]rch of “Cow”

Spangled Perched Birds (in case of allergy to this Australian bird)

GSTT terminology listing

- Offers a first phase to SNOMED CT adoption
- Produces a baseline from which a SNOMED CT subset can be created, using ICD-10 cross maps
- Naturally evolves
- Developed in conjunction with clinical teams
- Managed by “Data Managers”

Sample GSTT terminology list

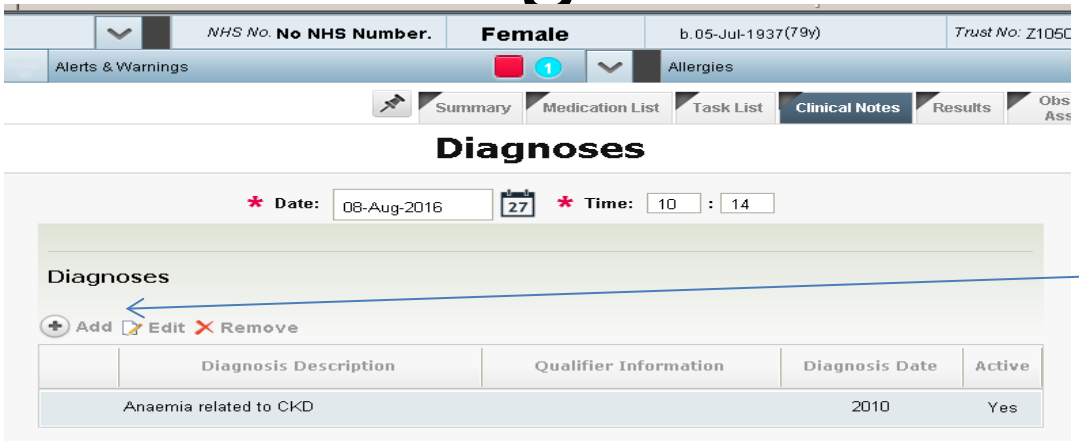
10368	Hernia Diaphragmatic (+/- obstruction, gangrene)		Diagnosis
10369	Hernia Femoral (+/- obstruction, gangrene)	K41.9	Diagnosis
10370	Hernia Inguinal (+/- obstruction, gangrene)	K40.9	Diagnosis
10371	Hernia Ventral [spigelian] (type, site, +/- obstruction, gangrene)	K43.9	Diagnosis
10372	Hernia Incisional (type, site, +/- obstruction, gangrene)	K43.2	Diagnosis
10373	Colitis [diarrhoea] (focal) (type, site)	A09.9	Diagnosis
10374	Cirrhosis (type, site)	K74.6	Diagnosis
10375	Liver Cirrhosis (type) (cryptogenic)	K74.6	Diagnosis
10376	Portal Hypertension	K76.6	Diagnosis
10377	Biliary Obstruction (type, site, cause)	K83.1	Diagnosis
10378	Haematemesis (cause)	K92.0	Diagnosis
10379	Bronchitis (type, cause)	J40X	Diagnosis
10380	Cellulitis (site, +/- infection)		Diagnosis
10381	Psoriasis (type,site)	L40.9	Diagnosis
10382	Decubitus Ulcer [pressure sore] (grade)		Diagnosis
10383	Leg Ulcer (chronic) (+/- infection, gangrene, diabetes)	L97X	Diagnosis
10384	Chondrocalcinosis (type, site)		Diagnosis
10385	Scoliosis (type, site)	M41.9	Diagnosis
10386	Spinal Stenosis (site)	M48.0	Diagnosis
10387	Osteomyelitis (type, site +/-infection)		Diagnosis
10388	Myocardial Infarction (type, site) [MI] [thrombosis]	I21.9	Diagnosis
10389	Dyspnoea (cause)		Diagnosis
10390	Pain (type, site)	R52.9	Diagnosis
10391	Chest pain (type) (site) [troponin negative]	R07.4	Diagnosis
10392	Abdominal pain (type) (site)	R10.4	Diagnosis
10393	Nausea + vomiting (chronic)	R11X	Diagnosis
10394	Dysphagia (cause)	R13X	Diagnosis
10395	Jaundice (cause)	R17X	Diagnosis
10396	Jaundice Neonatal (cause)	P59.9	Diagnosis
10397	Ascites (cause)	R18X	Diagnosis
10398	Ascites malignant		Diagnosis
10399	Polyuria (cause)		Diagnosis
10400	Amnesia (type, cause)		Diagnosis
10401	Pyrexia (cause)	R59.0	Diagnosis
10402	Chronic fatigue syndrome	F48.0	Diagnosis
10403	Syncope [collapse]	R55X	Diagnosis
10404	Convulsions [seizure] (type, cause)		Diagnosis
10405	Weight loss, abnormal (cause)		Diagnosis
10406	Complications of Procedure (specify)		Diagnosis
10407	Mitral valve disease (type)	I05.9	Diagnosis
10408	Valve disease, mixed (type)	I08.9	Diagnosis
10409	Tricuspid valve disease (type)	I07.9	Diagnosis
10410	Fibroids (type, site +/- excessive menstruation)	D21.9	Diagnosis
10411	Endometriosis (site)		Diagnosis
10412	Pelvic Inflammatory Disease (type)		Diagnosis
10413	Oedema (site)	R60.9	Diagnosis
10414	Foot ulcer (+/- infection, gangrene, diabetes)	L97X	Diagnosis

() contain instructions to fully qualify a term

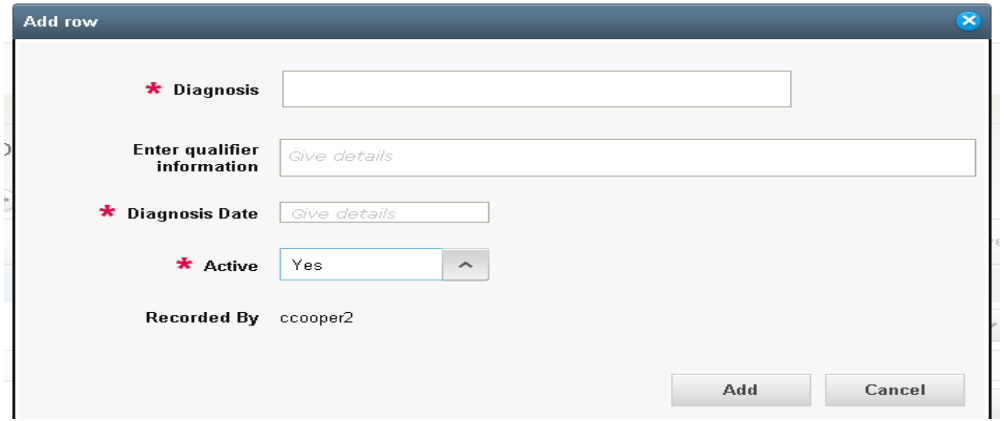
Cross maps have been provided to all fully specified terms

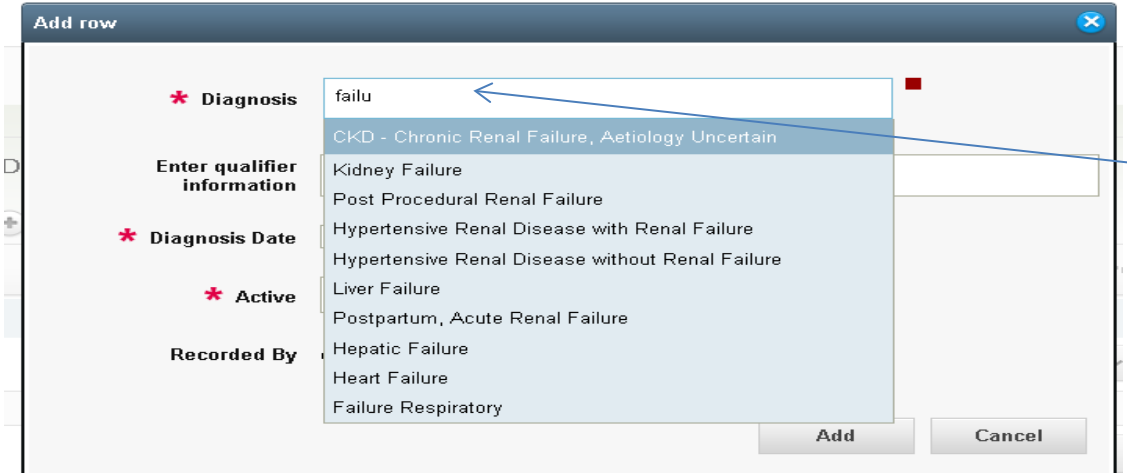
Synonyms/ Acronyms in [] can be used as alternative search terms

Entering a structured diagnosis



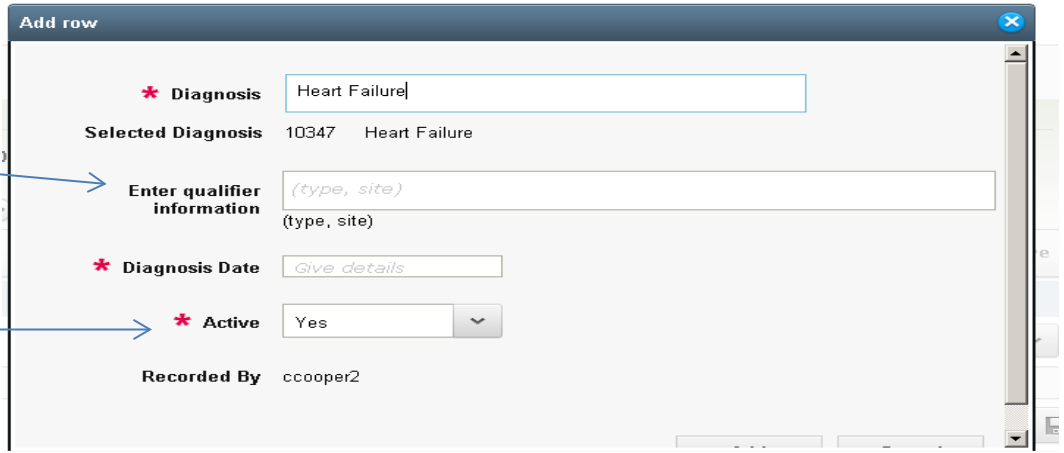
Press add to open new diagnosis entry window





Start to type a term. Suggested terms will be displayed once 3 characters are entered

Once a term is selected, grey text explains what further information should be entered to give greater specificity



The active box reflects this is a current diagnosis

Alternative entry to Increase data collection

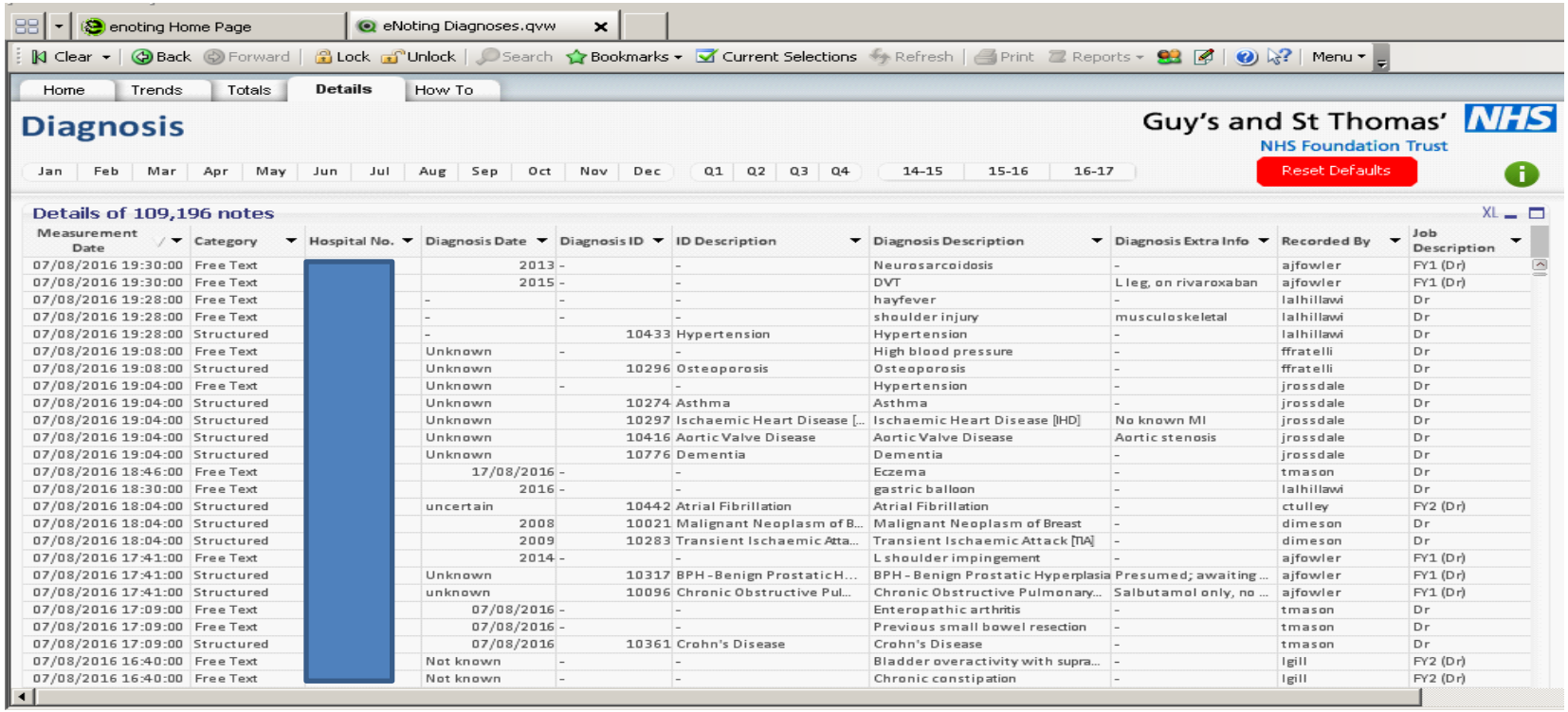
Know conditions and risk factors

- Chronic Obstructive Pulmonary Disease (COPD)
- Diabetes Mellitus Type II
- Chronic Renal Failure
- History of Myocardial Infarction (MI)
- Epilepsy
- Asthma
- Ischaemic Heart Disease
- Urinary Retention
- Heart Failure
- Emphysema
- Eating Disorder
- Dementia
- Alzheimer's Disease
- Anxiety
- Alcohol Dependence
- Hypetension
- Angina Pectoris
- Development Disorder of Scholastic Skills
- Autism
- Tendency to Fall
- Rheumatoid Arthritis
- Harmful use of Alcohol
- Current Smoker
- Anticoagulation - oral
- Schizophrenia
- Depression
- Self Harm History
- Presence of cardiac pacemaker
- Multiple Sclerosis
- Hearing loss, severe or profound

Contextualising Diagnoses

Main condition	Main condition treated in episode of care	Episode specific
Other acute condition	Any acute condition receiving treatment, not a primary reason for health encounter	Episode specific
Chronic long term condition	Ongoing treatment of condition	Patient record
Historical diagnosis	Historical diagnosis no longer treated	Patient record

Qlikview E-noting dashboard

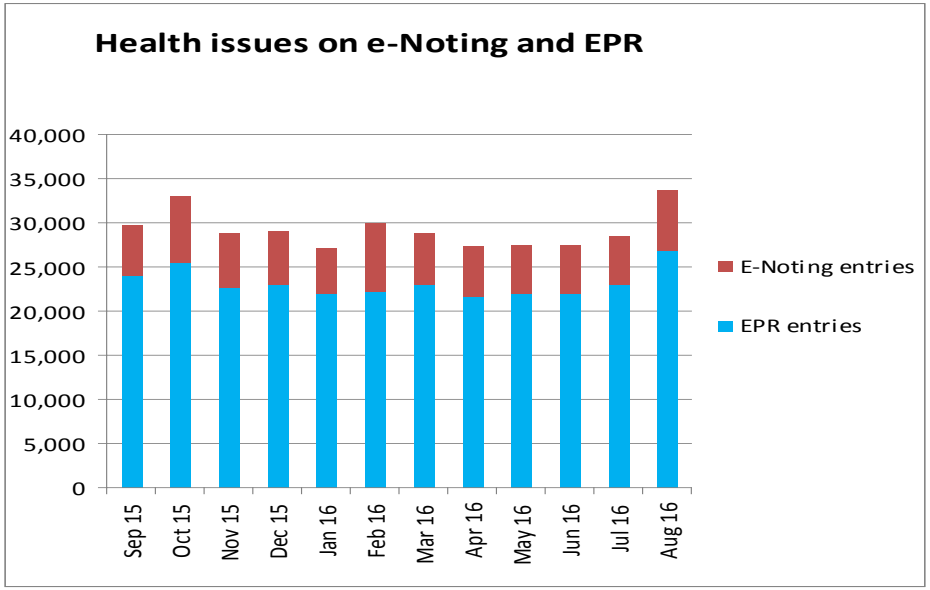


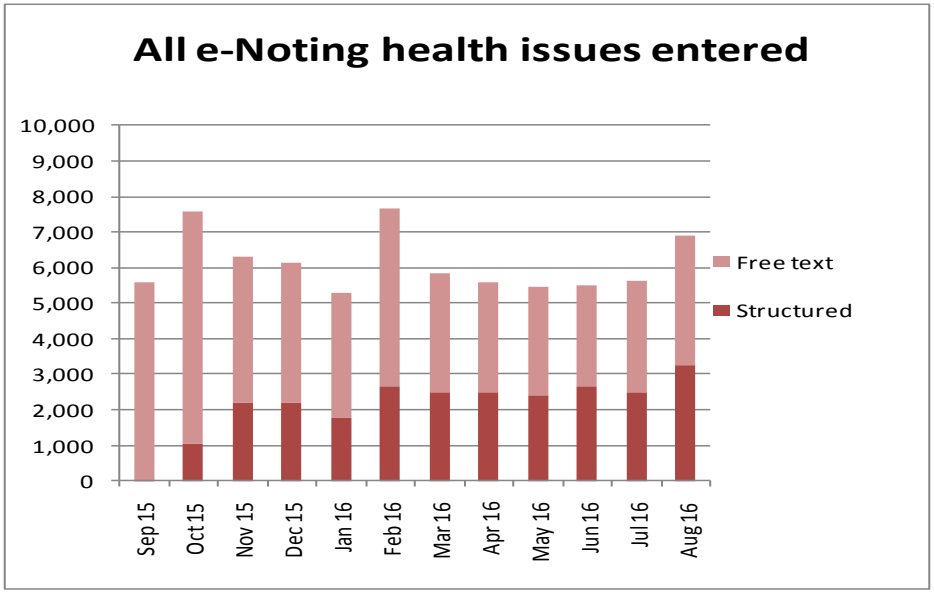
Measurement Date	Category	Hospital No.	Diagnosis Date	Diagnosis ID	ID Description	Diagnosis Description	Diagnosis Extra Info	Recorded By	Job Description
07/08/2016 19:30:00	Free Text		2013	-	-	Neurosarcoidosis	-	ajfowler	FY1 (Dr)
07/08/2016 19:30:00	Free Text		2015	-	-	DVT	L leg, on rivaroxaban	ajfowler	FY1 (Dr)
07/08/2016 19:28:00	Free Text		-	-	-	hayfever	-	lalhillawi	Dr
07/08/2016 19:28:00	Free Text		-	-	-	shoulder injury	musculoskeletal	lalhillawi	Dr
07/08/2016 19:28:00	Structured		-	10433	Hypertension	Hypertension	-	lalhillawi	Dr
07/08/2016 19:08:00	Free Text		Unknown	-	-	High blood pressure	-	ffratelli	Dr
07/08/2016 19:08:00	Structured		Unknown	10296	Osteoporosis	Osteoporosis	-	ffratelli	Dr
07/08/2016 19:04:00	Free Text		Unknown	-	-	Hypertension	-	jrossdale	Dr
07/08/2016 19:04:00	Structured		Unknown	10274	Asthma	Asthma	-	jrossdale	Dr
07/08/2016 19:04:00	Structured		Unknown	10297	Ischaemic Heart Disease [...	Ischaemic Heart Disease [IHD]	No known MI	jrossdale	Dr
07/08/2016 19:04:00	Structured		Unknown	10416	Aortic Valve Disease	Aortic Valve Disease	Aortic stenosis	jrossdale	Dr
07/08/2016 19:04:00	Structured		Unknown	10776	Dementia	Dementia	-	jrossdale	Dr
07/08/2016 18:46:00	Free Text		17/08/2016	-	-	Eczema	-	tmason	Dr
07/08/2016 18:30:00	Free Text		2016	-	-	gastric balloon	-	lalhillawi	Dr
07/08/2016 18:04:00	Structured		uncertain	10442	Atrial Fibrillation	Atrial Fibrillation	-	ctulley	FY2 (Dr)
07/08/2016 18:04:00	Structured		2008	10021	Malignant Neoplasm of B...	Malignant Neoplasm of Breast	-	dimeson	Dr
07/08/2016 18:04:00	Structured		2009	10283	Transient Ischaemic Atta...	Transient Ischaemic Attack [TIA]	-	dimeson	Dr
07/08/2016 17:41:00	Free Text		2014	-	-	L shoulder impingement	-	ajfowler	FY1 (Dr)
07/08/2016 17:41:00	Structured		Unknown	10317	BPH - Benign Prostatic H...	BPH - Benign Prostatic Hyperplasia	Presumed; awaiting ...	ajfowler	FY1 (Dr)
07/08/2016 17:41:00	Structured		unknown	10096	Chronic Obstructive Pul...	Chronic Obstructive Pulmonary...	Salbutamol only, no ...	ajfowler	FY1 (Dr)
07/08/2016 17:09:00	Free Text		07/08/2016	-	-	Enteropathic arthritis	-	tmason	Dr
07/08/2016 17:09:00	Free Text		07/08/2016	-	-	Previous small bowel resection	-	tmason	Dr
07/08/2016 17:09:00	Structured		07/08/2016	10361	Crohn's Disease	Crohn's Disease	-	tmason	Dr
07/08/2016 16:40:00	Free Text		Not known	-	-	Bladder overactivity with supra...	-	lgill	FY2 (Dr)
07/08/2016 16:40:00	Free Text		Not known	-	-	Chronic constipation	-	lgill	FY2 (Dr)

One stop coding

- Coding from point of entry to coded data
- 100% Auditable
- No need to include additional information in EDLs
- Enhances the diagnostic depth in support of HRG 4+
- Harnesses previously under utilised sources of information eg POAC
- Allows for coders to use their knowledge to Enhance codes rather than searching for information

What information can we use?





Electronic Prescribing

- Make use of drug prescription reports to reflect treatment of a diagnosis (only for single use drugs)
- Incorporation of the terminology list into the drug indication field

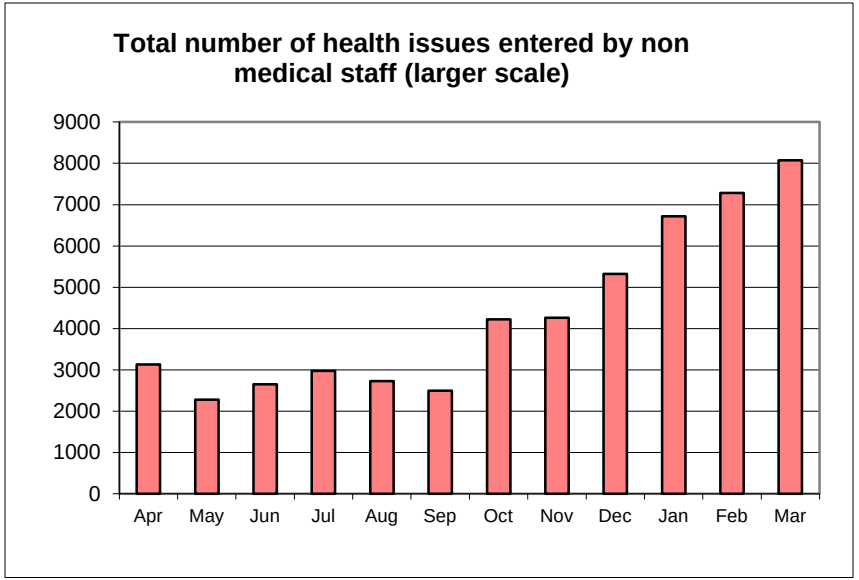
Harnessing the power of the team

What I have gained from being part of the clinical coding team

- An understanding of Clinical Coding
- Seeing patient care from a non-clinical perspective
- Transferable skills
- The importance of Clinical Coding for:
  - Patient safety
  - Quality
  - Income generation

What I have achieved

- Engagement of all clinical disciplines in the importance of documenting the complexity of our patients
- Capture of interventions carried out in outpatient settings
- Increase in number of health issues
- Increase in depth of clinical coding
- Raised the profile of the clinical coding team



How I have achieved

- My clinical knowledge and understanding
- Interface with all clinical staff
- Interface with service managers
- Growing understanding of clinical coding
- Specialty specific examples
- Events
- Awards

Next steps

Quality, safety, exploration, analysis

- Sepsis
- Learning Disability
- Falls
- Medication
- Outpatient clinics
- Order sets

We are all working together for the benefit of our patients and it is of great importance that clinical and non clinical staff understand their role and record effective information to obtain complete and accurate information for individual patients, for wider data collection and future planning.

Caroline Spencer

Any Questions