

Clinical Coding – Opportunity Knocks

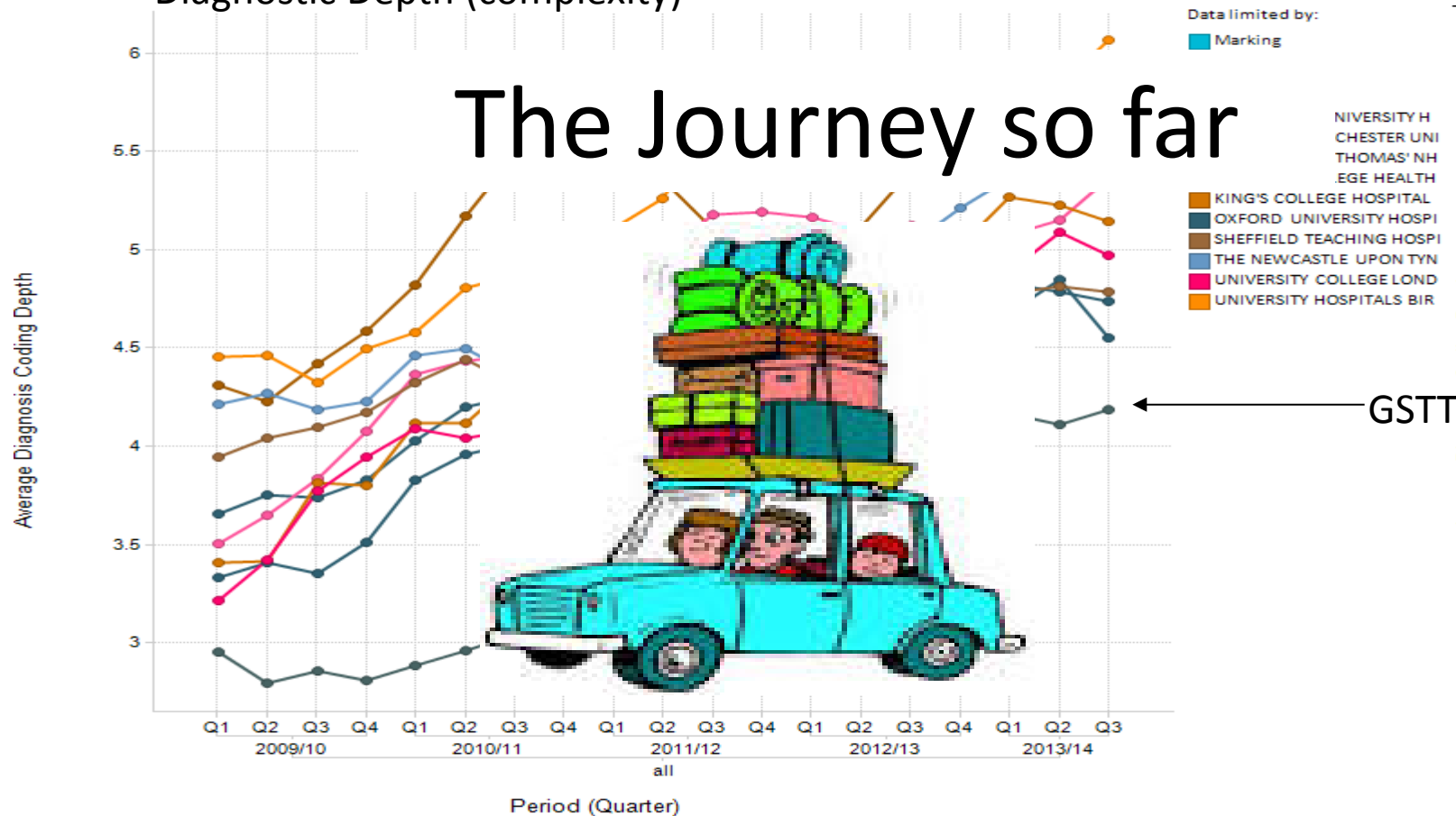


**Dr Adrian Hopper – Deputy
Medical Director**

**Carolyn Cooper – Head of Clinical
Coding**

**Dr Caroline Spencer – Project
nurse**

Diagnostic Depth (complexity)

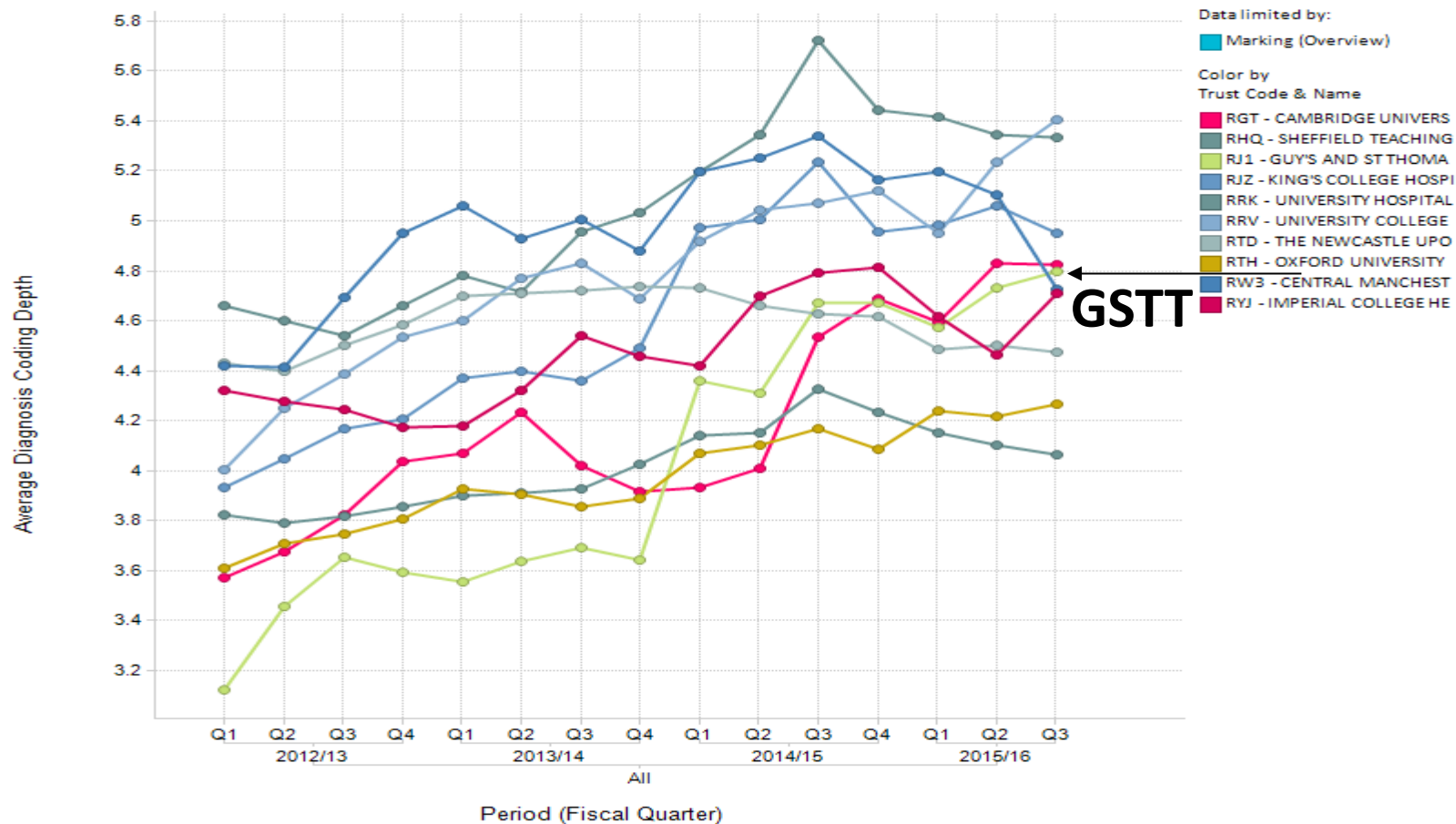


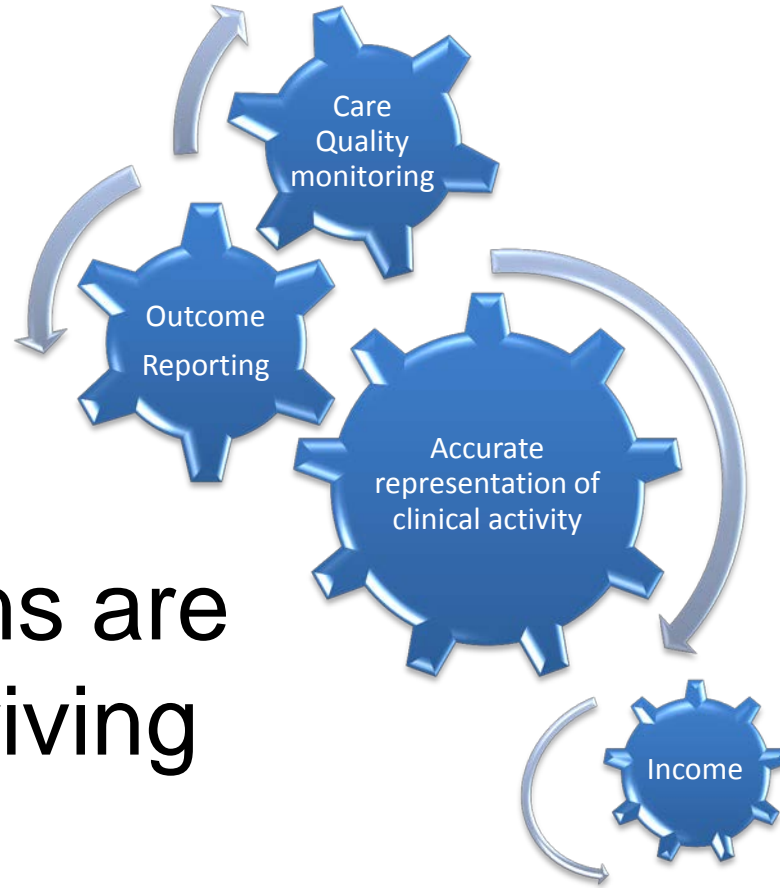
How have we achieved this improvement

- 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



Guy's and St Thomas' **NHS**
NHS Foundation Trust

Clinical Coding
Data Last Updated : 30 Jul 2014 @ 05:50
Data Freeze Date : 31 Mar 2014
Version: 2.0.2

For Queries Contact

Name:	Michael Griffiths
Email:	michael.griffiths@gstt.nhs.uk
Extension:	89767

A snapshot of activity...

Clinical Coding.qvw

Clear Back Forward Lock Unlock Search Bookmarks Current Selections Refresh Print Reports Menu

Home Totals Trends Top 10 root HRGs Patient Detail How To

Guy's and St Thomas' NHS NHS Foundation Trust

Top 10 Root Health Resource Groups

Reset Defaults

13-14 14-15 15-16 16-17 2013 2014 2015 2016 Q1 Q2 Q3 Q4 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Organisational Structure

Directorate Surgery
Service Orthopaedics
Specialty 11081-Orthopa...
Consultant

Admission Category

Admission Cate...

Coding Status

Activity Coded Yes
Spell Frozen

Codes

Primary Diagnosis
Any Diagnosis
Total Diag Codes
Primary Procedure
Any Procedure
Spell HRG

Other

Age Group
Overseas Visitor
Discharge Method
Discharge Ward
Excess Bed Days

Root HRG	Example HRG Description	Number of Spells
HR05	Reconstruction Procedures Category 2	488
HB21	Major Knee Procedures for Non-Trauma category 2 with CC	108

Root HRG	Example HRG Description	Income
HR05	Reconstruction Procedures Category 2	£6,609,323.45
HB21	Major Knee Procedures for Non-Trauma category 2 with CC	£5,793,882.75
		£815,440.70

...Includes Patient level detail

Sp ell 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 Diagn osis...
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 intrvertbri 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

Use of Electronic Patient Records
EPR/ E-Noting

Structured content
SNOMED CT

Automated Coding
Action 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

The Future of Health Documentation?

Systematised Nomenclature of Medicine – Clinical terms

Over 2.5 million terms including:

87 entries returned for search 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

10367 Hernia (type, site)		Diagnosis
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

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

Cross maps have been provided to all fully specified terms

Entering a structured diagnosis

NHS No. No NHS Number. Female b. 05-Jul-1937(79y) Trust No: Z1050

Alerts & Warnings Allergies

Summary Medication List Task List Clinical Notes Results Obs Ass

Diagnoses

* Date: 08-Aug-2016 27 * Time: 10 : 14

Diagnoses

+ Add Edit Remove

Diagnosis Description	Qualifier Information	Diagnosis Date	Active
Anaemia related to CKD		2010	Yes

Press add to open new diagnosis entry window

Add row

* Diagnosis

Enter qualifier information

* Diagnosis Date

* Active

Recorded By ccooper2

Add Cancel

The 'Add row' dialog box features a search input field containing the text 'failu'. A dropdown menu is open below the input, listing several medical terms: 'CKD - Chronic Renal Failure, Aetiology Uncertain', 'Kidney Failure', 'Post Procedural Renal Failure', 'Hypertensive Renal Disease with Renal Failure', 'Hypertensive Renal Disease without Renal Failure', 'Liver Failure', 'Postpartum, Acute Renal Failure', 'Hepatic Failure', 'Heart Failure', and 'Failure Respiratory'. The first suggestion is highlighted in blue. To the left of the input field, there are several labels with red asterisks: '* Diagnosis', 'Enter qualifier information', '* Diagnosis Date', '* Active', and 'Recorded By'. At the bottom right, there are 'Add' and 'Cancel' buttons.

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 'Add row' dialog box now shows 'Heart Failure' entered in the search field. Below the search field, the following fields are populated: 'Selected Diagnosis' is '10347 Heart Failure'; 'Enter qualifier information' is '(type, site)'; '* Diagnosis Date' is 'Give details'; '* Active' is 'Yes'; and 'Recorded By' is 'ccooper2'. The 'Active' field is a dropdown menu.

The active box reflects this is a
current diagnosis

Alternative entry to Increase data collection

Know conditions and risk factors

- | | |
|---|--|
| <input type="checkbox"/> Chronic Obstructive Pulmonary Disease (COPD) | <input type="checkbox"/> Hypertension |
| <input type="checkbox"/> Diabetes Mellitus Type II | <input type="checkbox"/> Angina Pectoris |
| <input type="checkbox"/> Chronic Renal Failure | <input type="checkbox"/> Development Disorder of Scholastic Skills |
| <input type="checkbox"/> History of Myocardial Infarction (MI) | <input type="checkbox"/> Autism |
| <input type="checkbox"/> Epilepsy | <input type="checkbox"/> Tendency to Fall |
| <input type="checkbox"/> Asthma | <input type="checkbox"/> Rheumatoid Arthritis |
| <input type="checkbox"/> Ischaemic Heart Disease | <input type="checkbox"/> Harmful use of Alcohol |
| <input type="checkbox"/> Urinary Retention | <input type="checkbox"/> Current Smoker |
| <input type="checkbox"/> Heart Failure | <input type="checkbox"/> Anticoagulation - oral |
| <input type="checkbox"/> Emphysema | <input type="checkbox"/> Schizophrenia |
| <input type="checkbox"/> Eating Disorder | <input type="checkbox"/> Depression |
| <input type="checkbox"/> Dementia | <input type="checkbox"/> Self Harm History |
| <input type="checkbox"/> Alzheimer's Disease | <input type="checkbox"/> Presence of cardiac pacemaker |
| <input type="checkbox"/> Anxiety | <input type="checkbox"/> Multiple Sclerosis |
| <input type="checkbox"/> Alcohol Dependence | <input type="checkbox"/> 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

enoting Home Page | eNoting Diagnoses.qvw

Clear Back Forward Lock Unlock Search Bookmarks Current Selections Refresh Print Reports Menu

Home Trends Totals **Details** How To

Diagnosis Guy's and St Thomas' NHS Foundation Trust

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Q1 Q2 Q3 Q4 14-15 15-16 16-17 [Reset Defaults](#) [i](#)

Details of 109,196 notes [XL](#) [□](#)

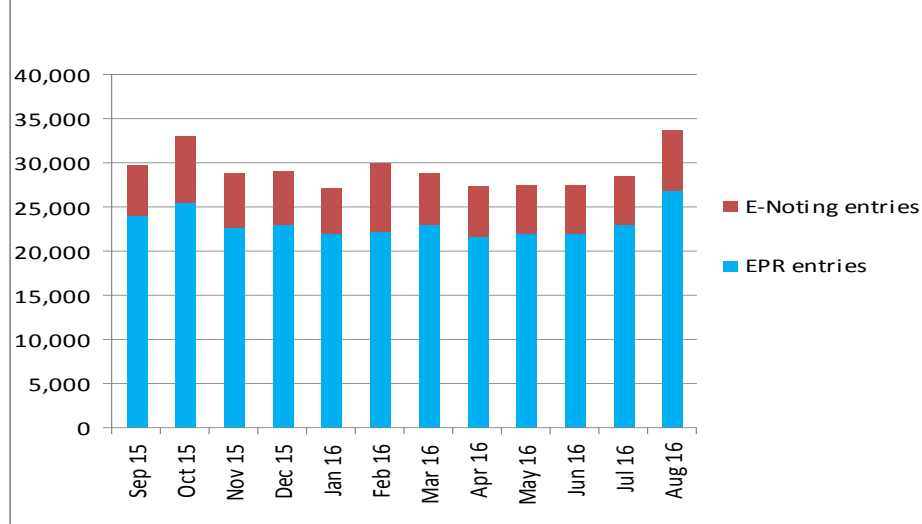
Measurement Date	Category	Hospital No.	Diagnosis Date	Diagnosis ID	ID Description	Diagnosis Description	Diagnosis Extra Info	Recorded By	Job Description
07/08/2016 19:30:00	Free Text		2013	-	-	Neurosarcooidosis	-	ajfowler	FY1 (Dr)
07/08/2016 19:30:00	Free Text		2015	-	-	DVT	L leg, on rivaroxaban	ajfowler	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	FY2 (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

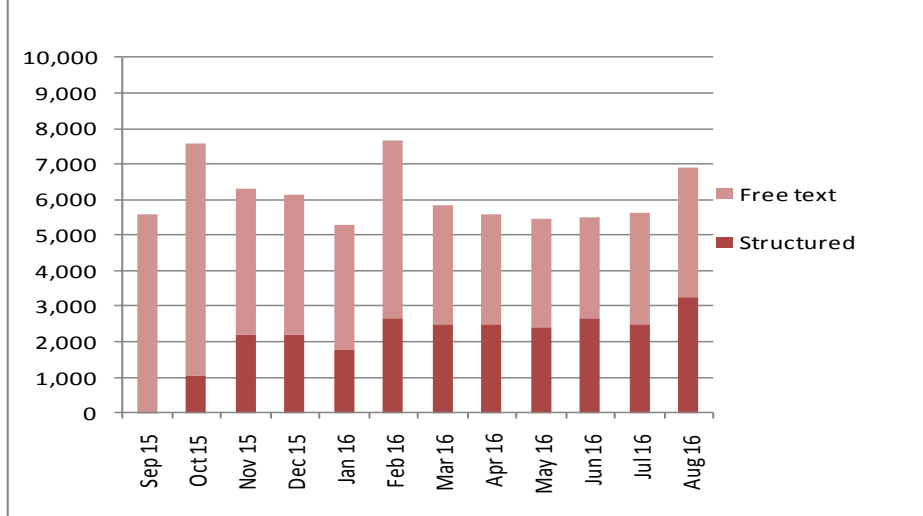
- Coding from point of entry to coded data
- 100% Auditable
- No need to include additional information in EDLs
- Enhances the diagnostic depth in support of HRG 4+
- Harnesses previously under utilised sources of information eg POAC
- Allows for coders to use their knowledge to Enhance codes rather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

What information can we use?

Health issues on e-Noting and EPR



All e-Noting health issues entered



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



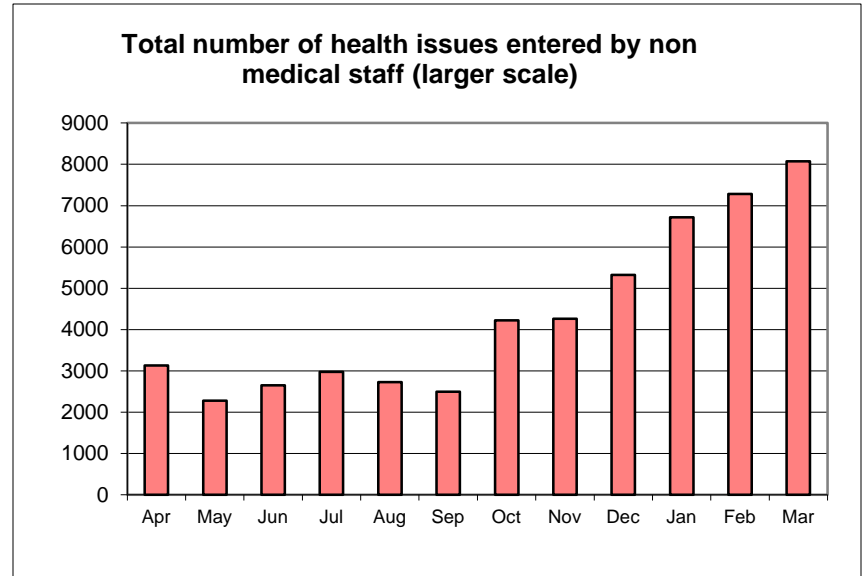
What I have gained from being part of the clinical coding team

- 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

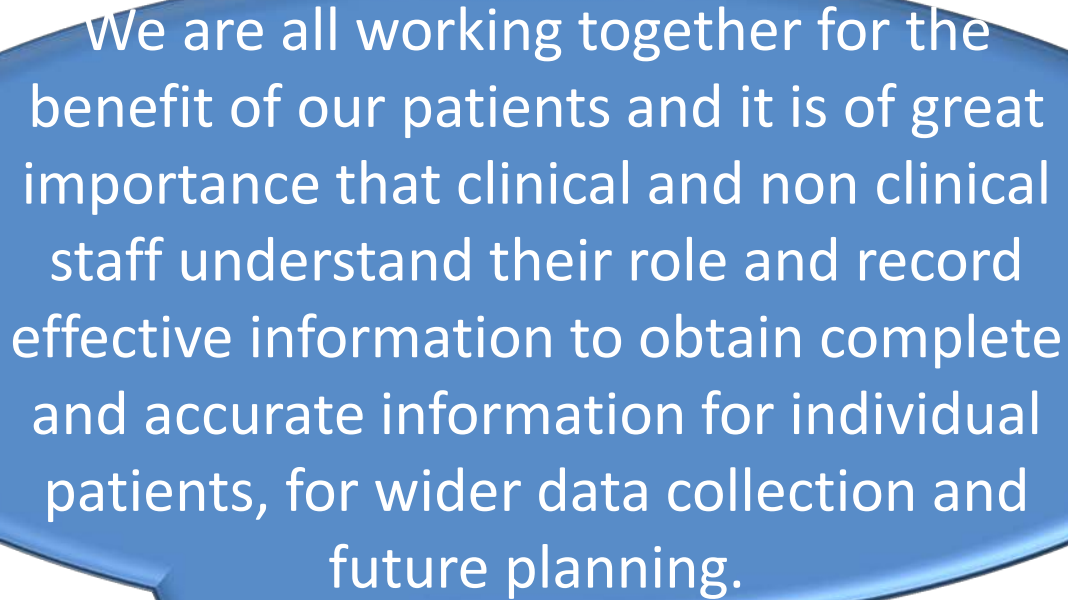


Next steps

Quality, safety, exploration, analysis



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

A blue speech bubble with a white outline and a drop shadow, containing white text. The bubble is positioned in the upper half of the slide.

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

