

Summarising electronic medical records in general practice

**– a survey of recruitment, training and
practice in a London Primary Care Trust**

Research for MSc Health Informatics
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- Background
- Context – summarising & clinical coding
– relevance
- The research – survey findings
- Recommendations

No.28410. Npfit A Test Choose And Book, Npfit Npfit Age 87 years PF

Add Data [Icon]

- MR
- B
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- X
- Y
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Date of entry : 22.8.2008

Entry : THR

Select option. <Return> to alter synonym :

- A Total prosthetic replacement of hip joint using cement 7K20
- B Cardioverter defibrillator introduced through the vein 793F
- C Cardioverter defibrillator introduced through the vein NOS 793Fz
- D Perc translum ball assist coil embolisat three more aneurysm 7A590
- E Perc translumin stent assis coil embolis three more aneurysm 7A5A0
- F Endovascular placement of three or more drug-eluting stents 7A6N2
- G Revisional excision of thoracic intervertebral disc NEC 7J246
- H Radiofreq controlled thermal denervation thoracic facet jt 7J492
- I Tot prosth repl hip no cement 7K21-7
- J Other total prosth repl hip 7K22-2
- K Approach through abdom cavity 7M14

Enter
Yes No
[Left Arrow] [Right Arrow] [Up Arrow] [Down Arrow]

Clinical Term (Read Code) Browser



F - Filter

M - Mentor/Templates

1-Find

THR

2-Query

Filter : All

3-Not

Quick Keys

Results

Hierarchy

A	Hostile or threatening behaviour	PCS13727HO3
B	Has access to potential or threatened victim	PCS13727HA3
C	Sore throat NOS	H02-1
D	Has a sore throat	1C92
E	Sore throat symptom	1C9
F	Candidal vulvovaginitis	AB21
G	Throat soreness	1C9-1
H	Thrush	AB2-2
I	No H/O Deep Vein Thrombosis	CLAPHNOS
J	Did not attend - Three consecutive appointments	PCS9985DI1

Selected Term

Select

OK

Cancel



Date of entry : 22.8.2008

Entry : DIABETES

Select option. <Return> to alter synonym :

A No FH: Diabetes	EMISNOFH5
B FH: Diabetes mellitus	1252
C Diabetes mellitus	C10
D Non-insulin dependent diabetes mellitus	C109
E Maturity onset diabetes	C1001-1
F Insulin dependent diabetes mellitus	C108
G Type 2 diabetes mellitus	C10F
H Diabetes insipidus	C135
I Diabetes resolved	21263
J Type 1 diabetes mellitus	C10E
K Polyneuropathy in diabetes	F372

Clinical Term (Read Code) Browser



F - Filter

M - Mentor/Templates

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DIABETES

2-Query

Filter : All

3-Not

Quick Keys

Results

Hierarchy

Synonyms

A	Type 2 diabetes mellitus	C10F
B	Referral to diabetologist	8H4F
C	Type 1 diabetes mellitus	C10E
D	No FH: diabetes	EMISNOFH5
E	FH: Diabetes mellitus	1252
F	Referral to G.P.	8H62
G	No family history diabetes	1228
H	Right Foot Low Current Risk	EMISHGT208
I	Insulin dependent diabetes mellitus	C1000-1
J	Diabetes: shared care programme	66AQ

Selected Term

Select

OK

Cancel

No.28410. Npfit A Test Choose And Book, Npfit Npfit Age 87 years PF

MR

Add Data [Icon]

Date of entry : 22.8.2008

Entry :

Enter free text ,line label, or move cursor , <\> to back up

- A Illness and disease X....
- B Occupations 0....
- C History / symptoms 1....
- D Examination / Signs 2....
- E Diagnostic procedures 3....
- F Laboratory procedures 4....
- G Radiology/physics in medicine 5....
- H Preventive procedures 6....
- I Operations, procedures, sites 7....
- J Other therapeutic procedures 8....
- K Administration 9....

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Enter
Yes No
[Navigation arrows]

No.28410. Npfit A Test Choose And Book, Npfit Npfit Age 87 years PF

MR

Add Data [Icons]

Date of entry : 22.8.2008

Entry : █

Enter free text ,line label, or move cursor , <\> to back up

- A Illness and disease X....
- B Infectious and parasitic diseases A....
- C Neoplasms B....
- D Endocrine, nutritional, metabolic and immunity disorders C....
- E Diseases of blood and blood-forming organs D....
- F Mental disorders E....
- G Nervous system and sense organ diseases F....
- H Circulatory system diseases G....
- I Respiratory system diseases H....
- J Digestive system diseases J....
- K Genitourinary system diseases K....

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<PgDn>

Enter

Yes No

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GP electronic medical records

Computers → changed information management process

Guidance: summariser should be suitably knowledgeable and skilled by background, or training and with supervision

Who summarises?

Who enters diagnoses/procedures onto computer?

Accuracy: clinical care, secondary uses, increased sharing

- clarity of meaning, context, author (paperless)
- poor quality → clinical error, failure to trust/use

Letter from retired GP to the British Medical Journal:

'Last summer, my 20 year old grandson, a Maths student at Nottingham, spent several weeks summarising medical records at a practice near his home. He had virtually no training and has no clinical knowledge or experience.

I summarise letters at my former practice and find that many letters take a great deal of thought and time in order to identify and enter the appropriate code.'

...in response to another former GP & summariser's letter:

'When checking the computerised medical summaries of new patients against the written notes and letters, I have found a diagnosis...entered into the summary when the consultant's letter stated the patient did not have this condition; a provisional diagnosis entered as a definite diagnosis, even when it was later excluded; the wrong Read code being used; an important diagnosis omitted from the summary; and misunderstanding of clinical information.'

Smith P. GP computerised summaries may not be accurate or complete. *BMJ* 2008; 336 1453

Literature Review

GP data quality standards (Byrne E et al, 2008)

- **Quality & Outcomes Framework (QOF)**
Clinical & admin targets. Points remunerated based on data
- **PRIMIS+ → facilitation model**
National programme of training & quality improvement via PCT facilitators.
Semi-automated audits of recorded data
- **Paperlight accreditation**
Complete patient records computerised, policies to ensure maintained, regular audits to validate, accredited software, data security and business continuity measures
- **IM&T DES**
Funding incentive in GP contract 2006/7 to support practices improve data quality → sharing under the NHS Care Records Service incl. addressing staff training needs

Defining data 'quality'

completeness? correctness? Intended use?

Measuring data 'quality'

standard (eg paper)

internal consistency (presence/absence of relevant codes)

external prevalence data

Research aims

1. The type of staff summarising records
2. The training summarisers/data entry staff report having received
3. Reported awareness and use of existing guidance and support

Method

49 practices in a London PCT

Survey: Descriptive (summarising & coding)
Evaluation (implementation of guidance)
Open & closed questions

2 self administered questionnaires:

- Practice Manager
- Records summariser(s)

Data collection August 2008

Practice Manager questionnaire

BACKGROUND

How long summarising onto computer? Previous summaries on paper? Who summarised?

RECRUITMENT & TRAINING

Redeployed or recruited? Temp/permanent?

Assessment of suitability for task?

Any training for summarisers/coders?

CURRENT PRACTICE

Role/background of current summariser?

Clinical data entry staff?

Use of summarising/coding/other protocols or guidance?

FUTURE

Paperlight? Interest in IM&T DES? Staff training needs analyses?

View on Summarisers/coders training needs?

YOUR VIEWS

Most important thing PCT could do to help your practice ensure data quality?

Main challenges in computerising medical records? Other comments?

Summariser questionnaire

SUMMARISING ROLE

Only Summariser? Who else? Any other role at practice? Summarise and code?

TRAINING AND GUIDANCE

How learned to summarise and code onto computer?

Received/know of any guidance?

Actions if queries about information in a medical record or how/if to record it on computer

Access to PCT intranet?

YOUR VIEWS

Training/guidance wishes? Preferences re delivery?

Most important thing PCT could do to help you ensure data quality?

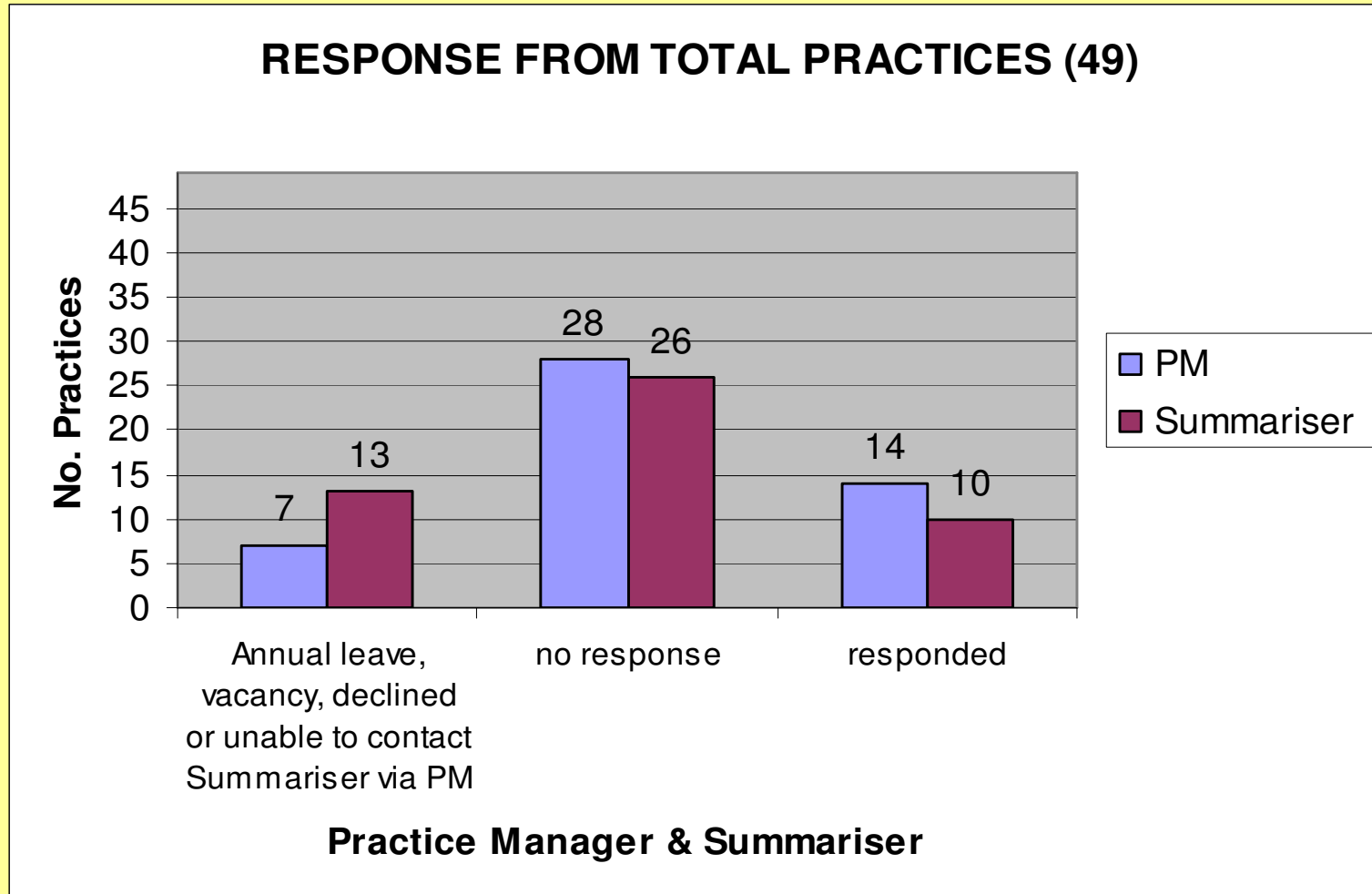
Other comments?

Response

by computer system, practice size and respondent
(Total = 23 out of 49 practices)

	EMIS PCS (25)				EMIS LV (23)				Vision (1)	
Size of practice	Small (1-3 GPs)		Large (4+ GPs)		Small (1-3 GPs)		Large (4+ GPs)		Large (4+ GPs)	
Total No. practices	17		8		7		16		1	
	PM	Sum	PM	Sum	PM	Sum	PM	Sum	PM	Sum
Declined, A/L, post vacant	2	4	0	3	3	3	2	3		
Potential respondents	15	13	8	5	4	4	14	13	1	1
Responded	4	2	5	2	3	3	9	9		
No reply	11	11	3	3	1	1	5	4	1	1

PM & Summarisers across all practices



Who summarises medical records?

EMIS PCS		EMIS LV	
Small practices (n=17)		Small practices (n=7)	
Group	Summariser	Group	Summariser
Clinical (2)	2 Practice Nurses	Clinical (1)	1 'Doctors'
Administrative (3)	2 Practice Managers 1 Receptionist	Administrative (1)	1 Retired Practice Manager
Ambiguous (2)	1 Summariser 1 HCA	Ambiguous (1)	1 Notes Summariser
Large practices (n=8)		Large practices (n=16)	
Group	Summariser	Group	Summariser
Clinical (4)	2 Practice Nurses 2 Doctors	Clinical (2)	1 occasional medical student 1 trainee Dr awaiting accreditation
Administrative (3)	1 Practice Manager 1 admin/data input 1 Snr receptionist	Administrative (2)	1 Data Coordinator 1 IT Data coordinator
Ambiguous (1)	1 temp ?medical student	Ambiguous (5)	5 Summarisers

Clinical
9

Admin
9

Ambiguous
9

Recruitment of summarising/coding staff

14 practices redeployed existing staff

7 employed permanent staff

8 employed temporary staff

(1 practice → GPs following temporary staff)

Reported summarising training

Majority learned to summarise from colleagues within the practice

Fewer referred to written guidance or protocols

PCT summarising protocol most common source of guidance

Reported clinical coding training

Mainly through use of clinical computer system

Read code lists/booklets (PCTs?)

Few referred to colleagues for guidance

(NB Good practice guidelines advise clinician support/supervision)

Current sources of guidance/support

Practice Managers

- Majority do not receive
- Some from electronic, non-clinician sources (QoF, PCT protocol or templates)
- 1 referred to other PMs
- 1 worked with GPs to resolve a problem

Summarisers

- Majority sought guidance from clinicians
- Other sources included:
 - Other colleagues
 - PCT
 - Clinical computer system supplier

Perceived Summariser training needs

Practice Manager

5 did not feel Summariser required training

5 were satisfied with the summarising, wishing them to be kept up to date or able to benchmark their summarising

2 welcomed any training

1 indicated a coding problem

Summariser

Greater interest in training (all admin/support staff) in

- General summarising (1)
- Read codes in more detail (1)
- Assurance of their correct summarising/coding (2)

Clinician responses did not indicate perceived training needs.

Practices main problems in developing electronic patient records (PM's)

- **Time/workload pressures**
 - Allocating adequate staff time for the scale of the task
 - Time required to summarise medical records (NB transient populations)
- **Adequate knowledge for the task**
 - content of a medical record summary
 - Identifying important information in paper records
 - Medical terminology
 - Appropriate use of Read codes
- **Practical problems**
 - Reading doctor's handwriting (linked to background knowledge?)
Terminology? Acronyms? Symbols?
 - Recruitment (long/short term availability of trained staff)

Practice expectations of PCT to support data quality (PMs & Summarisers)

- Guidance, training and ongoing support
 - NVQ scheme (a training standard)
 - Peer learning
 - (“shadowing a practice that does it correctly”)
 - PCT liaison with clinical system suppliers

Practices unprompted comments

- Enthusiasm for GP2GP
- Importance of comprehensive training
- Skill and application of nurse in coping with flow of new patient records
- 3 practices comments suggest “issues” with PCT re motive, timely support and funding

Overall response: 2 themes

(1) Role of PCT

- Train
- Set/advise summarising benchmark
- Contribute to a PCT or national convention re clinical coding (standard, not event)
- Regularly update practices on coding changes/problems
- Liaise with clinical computer suppliers in resolving technical problems

Overall response: 2 themes

(2) Training

- Majority of practices intend to undertake IM&T DES
- Expect PCT to provide training
- In-house knowledge and skills transfer most common (but little known re knowledge base of trainers)
- Individual certified qualification indicating achieved level of skill and knowledge

Learning from research

Facilitation

- approach “imperative” as information alone does not enhance understanding or effect change
- Survey: some practices would welcome

Training

- IM&T DES incl. staff Training Needs Assessments
- PCT providing access to guidance documents e.g. summarising protocol and PRIMIS+ resources

Benchmarking

Survey: some practices would welcome
PRIMIS+ electronic audit tools

Recommendations

For PCT in short term:

- Recruit further practice facilitator
- Use intranet to provide/signpost practices to guidance
- Use of Protected Learning Time
- Medical terminology courses

Broader, longer term:

- Link TNA to Health Informatics Career Framework/National Occupational Standards
- Develop national standardised modular blended learning linked to role-based competencies mapping by HICF
- Training and assessment programme → individual ability to demonstrate level of knowledge and skills

*“It’s mainly all about people and process,
not technology.*

The hard stuff is the soft stuff!”

Professor D. Protti
2007

References

- The Joint GP IT Committee of the General Practitioners Committee and the Royal College of General Practitioners. Good practice guidelines for general practice electronic patient records (version 3.1). Guidance for GPs. Department of Health & Royal College of General Practitioners. Gateway approval: 5098. June 2005.
- Byrne E, Kalra D, Stramer K, Greenhalgh T. Data Quality Evaluation for the Summary Care Record. An independent evaluation by University College London. London. University College London; 2008.
- Protti D. International experiences in implementing 'single care' record approaches. Education, Training and Development. Management Briefing No. 6. Connecting for Health. October 2007