A Single Patient Medication Record?

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Ocean Informatics, UK

SCIMP Working Group

BCS Primary HealthCare Specialist Group

Primary Health Care SG

What is the proposition?

- **ALL** “Community” e-prescribers

  should view, update and prescribe from a “single database” which holds the source of truth for all non-inpatient prescriptions?

- It is time to take the patient’s e-prescription record out of the sole control of GP computer systems.

What are the drivers?

Patient safety

- Medicines reconciliation
  - major part of Scottish eHealth strategy 2011

Make it easier for clinicians to do the right thing

Reduce IT development cost

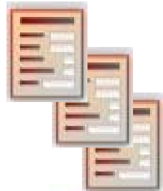
- not all central health IT is a bad thing

Multiple prescribers

Community Health

Person

Leading to frequent communication difficulties and patient harm



GP.

Person

Hospital out-patients

Person

Communication errors

- Transitions of care
  - Admission
  - Discharge
  - Transfers

- Multiple providers
  - Shift change
  - Team change
  - Shared community care

ECS and Reconciliation

NHS Lanarkshire Discovery pilot project

Use ECS in a Scheduled Care setting to 'fill the gaps' since the original referral was made

- Potential harm prevented
- ECS was still only 60% accurate
- Reconciliation still a largely manual process
  - BCS Health Scotland Dr Gregor Smith
    - http://www.mediafire.com/download.php?qa9oac4gapj9l8b

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NHS Lanarkshire Pilot

Retrospective Audit of E-Referral

No of episodes of care	31
Age in years (range)	56 (21 – 79)
Male / Female	77% Female
Number of episodes with referral paperwork and ECS available	24
Average length of time between referral and pre-assessment in days (range)	110 (20-316)
Total number of discrepancies	119
Average Number of Discrepancies / Episode	5

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NHS Lanarkshire Reconciliation

Results – Impact of ECS

Q7: Identify the potential impact to the patient if the information gained from the ECS had not been available (Please select ONE)

Answer Options	Nursing	%	Pharmacy	%	Total Response Percent	Total Response Count
No harm	15	75	28	61	65%	43
Would require monitoring to confirm that it resulted in no harm to the patient and/or required intervention to preclude harm	3	15	17	37	30%	20
Would contribute to or result in temporary harm to the patient and require intervention	2	10	1	2	5%	3
					answered question	66
					skipped question	1

How can e-Health help?

- Communicate current GP system information
  - e-Referral
  - ECS
  - ePharmacy
- Roll out further community e-prescribers??
  - “e-recommendations ?”
- Computer-aided reconciliation

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Denmark: Computer-aided reconciliation

A - OPUS Arbejdsplads - GSABUNDV - 8550 - SBKN

Moduler Oversigt Links Programmer Hjælp

OPUS Medicin

Medicinkort | Overblik | Ordination | Regimer | Medicinhist. | Recepthist. | Recept | Oph./Giv.

Surcek,Sule
25.08.2009 13:52
I/A0.0/ROSMEI92

Medicinkort

Sidst ændret 16.05.2010 — Status Suspenderet

Lægemiddel	Dosis	AV	T
Metformin "Actavis", tablet, filmovertr. 500 mg Metformin:behandling af diabetes type 2	1 stk morgen og aften	oral	F
Kaleorid, depottabletter 750 mg Kaliumchlorid:kaliumtilskud	1 stk morgen, middag, aften og nat	oral	F
Simvastatin "Alternova", tablet, filmovertr. 40 mg Simvastatin:mod forhøjet kolesterol	1 stk aften	oral	F
Sinemet 12,5/50, tabletter 50 mg + 12,5 mg Levodopa og decarboxylase-hæmmer:mod Parkinsons sygdom	1 stk morgen og aften	oral	F

OPUS Medicin

Medicinafstemning 28.04.2010 — Foretaget af SBKN

Lægemiddel	Dosis	Enh.	AV	T
Metformin "Actavis", tablet, filmovertr. 500 mg		stk.	oral	F
Simvastatin "Alternova", tablet, filmovertr. 40 mg		stk.	oral	F
Prednisolon "DAK", tabletter 5 mg	1+0+0+1	stk.	oral	F
Todolac, tablet, filmovertr. 300 mg	1+0+0+0	stk.	oral	F
Pinex, tablet, filmovertr. 500 mg	2+2+2+2	stk.	oral	F
Sinemet 12,5/50, tabletter 50 mg + 12,5 mg	1+0+1+0	stk.	oral	F

Frigiv | Udskriv medicinkort | Løse recepter: 14 | Sammenknyt | Medicinafstemning | Ny ordination | Udskriv medicinoversigt

Patienter

Filter < Intet filter valgt >

Surcek,Sule

001 INDLAGT / MED. SENGEAFS. 92, ROS
25.08.2009 13:52
ROS MEDICINSK AFD.

Antal: 1 — Flere resultater

Patienter | Rekvisitioner

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Incoherent medication ‘models’

Multiple SCI-XML GP medication messages

- ECS / PCS / KIS
- SCI-Gateway
- e-Pharmacy

based on almost identical but technically incompatible models

- Hard to implement, even harder to change
- Not sustainable to enable
  - Medicines reconciliation, Allergy alerting, GP2GP

The ‘Previn’ scenario

“I am playing all the right notes”…

“but not necessarily in the right order”.”

Common Medication Model project

Establish a **coherent core GP/community medication model**

- Allow variation for specific contexts
  - ECS, e-pharmacy
- Make provision for future requirements
  - Meds reconciliation, OOH allergy alerts ……
- Componentised development
  - Safer, cheaper, more adaptable
  - EMIS, INPS, NHS Wales / NI, ? England

A single Medication Record?

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Medication Repository Anyone?

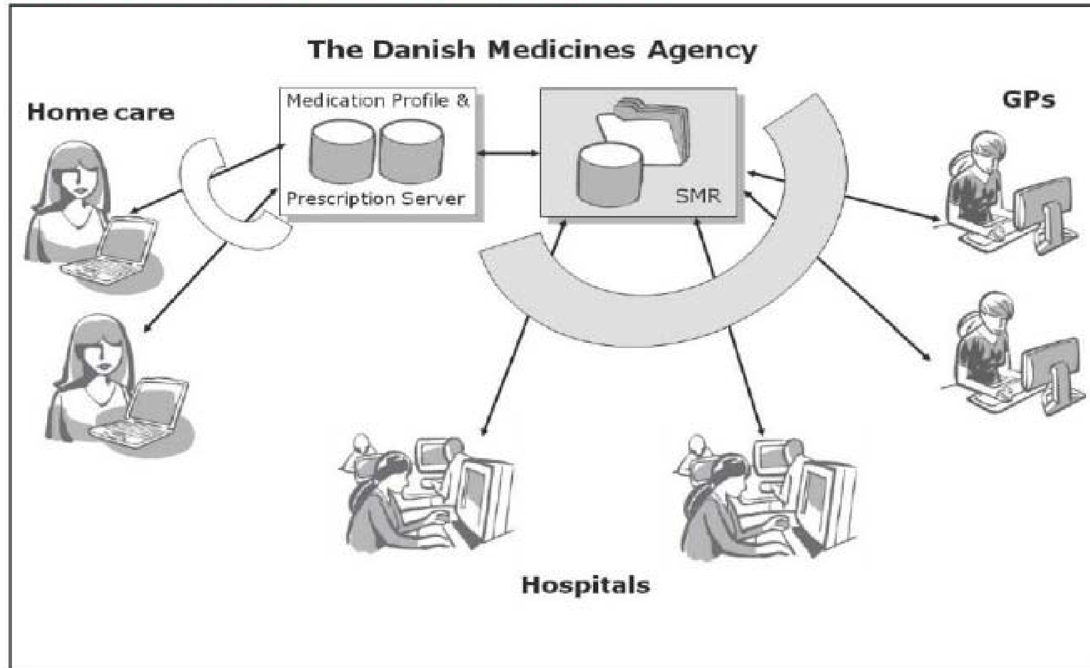
Posted on April 27, 2011 by Ewan Davis

I was writing this piece when I read Ian McNicoll's stimulating blog piece "EastendEHRs? – Dr Leggs' Diary" http://bit.ly/dT3d8u Ian talks about community medication records, very much the theme of this piece.

It seems to me that a shared medication record is the single most useful thing that could be provided in any health community and that while such a service is not without it challenges it is eminently doable.

Danish Shared Medication Record

TECHNICAL SOLUTION



Go to Content Page

The Medication Profile/Prescription Server contains an electronic copy of all prescriptions issued within the past two years. The SMR server retrieves copies of the prescription from the Prescription server. Doctors create “active prescription” in SMR through their Electronic Healthcare Record system. From “active prescriptions” the doctor can create and send prescriptions to a pharmacy. Today, it-systems for health care assistants in local communities generate a medication schedule based on Medication Profile/Prescription Server data. In the future, this will be changed to SMR data.

http://www.sdsd.dk/sitecore/shell/Applications/~/media/Files/Faelles_medicinkort/FMK%20folder_v3.ashx?la=en&ts=20100608T1446513920

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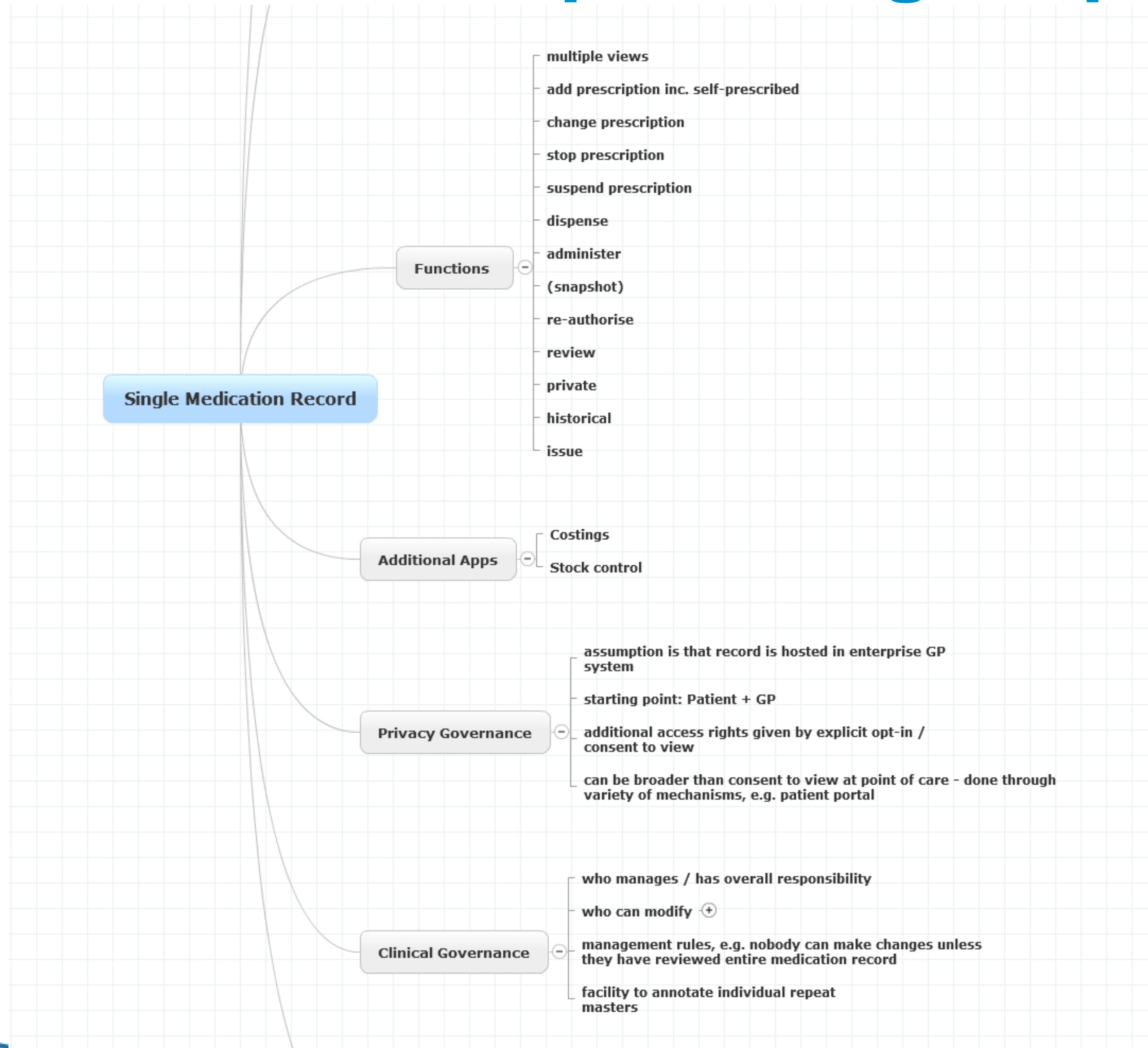
PHCSG workshop ‘Clicsig‘ Sept 2011



What should be in the shared record?

- Medication summary
  - Active medication
  - Past medication
  - Where / by whom prescribed
  - Who do I contact?
  - Dispensed (by)
- Adverse drug reactions
  - Allergies
  - Intolerances
  - Interactions

What can we do with it?

A real prescribing system

- at least as much as any current GP system
  - Add, change, delete
    - medications
    - adverse reactions
  - Annotate records (esp. patients)
  - Enable adverse reaction checking
  - Enable clinical communication
  - Usual audit trails, backup

Who might have access?

To view, prescribe, record dispensing or annotate and depending on governance rules

- GP
- Patient and Carers (via patient portal)
- Community
- Mental Health
- Secondary care
- Unscheduled care
- Pharmacy
- Secondary uses

SMRS - What would the GP see?

Joan Margaret HABGOOD 34Y - 26/05/1977 (F) 171 Privett Road, Leeds, Z99 9ZZ - [INPS View]

Consultation Summary Guidelines Add List Therapy View Window Help

Appointments | Patient Select | Patient Details | Consultations | Journal | Filtered List | Summary/Grid | Tests | Therapy | QOF Guidelines | Problems | Guidelines

Initial Filter
- 11 Problems
- 29 Consultation
- Drug Allergies & Adverse F
- 3 Recalls and Reviews
- Patient Preference
- 21 Medical History
- 16 Therapy
- 5 Lifestyle
- 6 Examination Findings
- Immunisations
- 2 Miscellaneous
- 3 All Test Results
- 1 New Registration Exam
- Child Health Surveillance
- Maternity
- Well Person Clinic
- HP Interventions
- Elderly
- Disease Registers

Immunisations Due in ...

Poliomyelitis 1st 26/07/1977 ...

Rubella 1st 26/05/1978 o/d

Current | Scripts | Repeats

Medication review with patient Due 28 October 2012

Date	Drug	Iss	Max	Dosage	Q...	Preparation	Authorised	Repeat Until	Prescriber	Print
28/10/11	DIANETTE tabs	1	6	TAKE ONE DAILY	126	tablet	28/10/11	29/04/2012	SJ	Yes
01/09/11	CYPROTERONE ACETATE tabs 100mg			AS DIRECTED	84	tablet			JM1	
01/09/11	HUMALOG VIAL inj soln 100 units/ml			AS DIRECTED	1	vial			JM1	
01/09/11	CO-AMOXICLAV (amoxicillin & clavulanic acid) tabs 250mg+125mg			TAKE ONE THREE TIMES DAILY	21	tablet			JM1	
01/09/11	PARACETAMOL supp 125mg			EVERY DAY	10	suppository			JM1	
22/07/11	CO-CODAMOL (codeine & paracetamol) caps 8mg+500mg			TAKE 1 OR 2 FOUR TIMES DAILY	100	capsule			JM1	
28/10/11	PARACETAMOL tabs 500mg	1	6	TAKE TWO FOUR TIMES DAILY	80	tablet	23/06/11		FV	Yes
28/10/11	SALBUTAMOL mr cap 4mg	1	6	TAKE ONE TWICE DAILY	56	capsule	23/06/11		FV	Yes

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Application or Database or Service?

Not

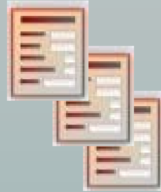
- a stand-alone application
- or synchronisation between local databases

Instead

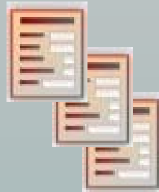
- An open specification for a ‘**service**’ that potentially can be hosted and supplied by any number of technical solutions or vendors
- And can be accessed by any agency or person who has the appropriate rights

Where is my data? I

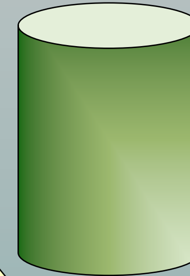
EMIS Web



Vision 360



SCI Store



Or EMIS web or Vision 360 or MS Healthvault or …

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Where is my data? II

or vice-versa,

Assuming that we have standard medication service model

Summary

Single shared e-health records are in general a bad idea **but**

- A limited, shared community e-Medication record service could make a substantial contribution to
  - Patient safety
  - Clinical workload esp. at transitions of care
  - System developer effort
  - Patient engagement

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Discussion points

- Are GPs willing to give up control of the ‘patient medication record’ ?
- Can we define tight rules about who can and cannot prescribe (and what) or is trust enough?
- What is the GP system supplier perspective?
- Can we persuade secondary care colleagues to prescribe in a “primary care” fashion?
- Will patients make sensible use of annotations?
- Should this be part of e-Health strategy?

Scottish Medication Electronic Record Service

S.M.E.R.S.H

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