

The National Programme for IT (NPfIT)

Prescribing aspects of the Programme



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Changes in care delivery

- Examples
 - General Practice out of hours work
 - NHS direct call centre
 - Walk-in centres
- European working time directive maximum 48 hour week for all clinicians
- High quality care demands high quality patient information as well as the latest information to support decisions
- **Greater sharing of the record is essential especially prescribing**



The NHS on any given day

- Activity
 - 1 million people visit their family doctor
 - 130,000 dental visits
 - 8000 '911' admissions
 - 1.5 million prescriptions
 - 100,000 district nurse visits
- Users
 - 90,000 doctors
 - 500,000 nurses
 - 1.2 million in total - 3rd largest employer in the world



Or in a year.....

- 13m outpatient visits
- 5.3m people admitted to hospital
- 624m prescription items issued
 - 95% issued in GP are electronically generated
- Approximately 300m office visits in primary care
- England already spends €1.6bn on NHS IT each year
- New money
- Overall extra €10 bn committed over 10 years for IM+IT



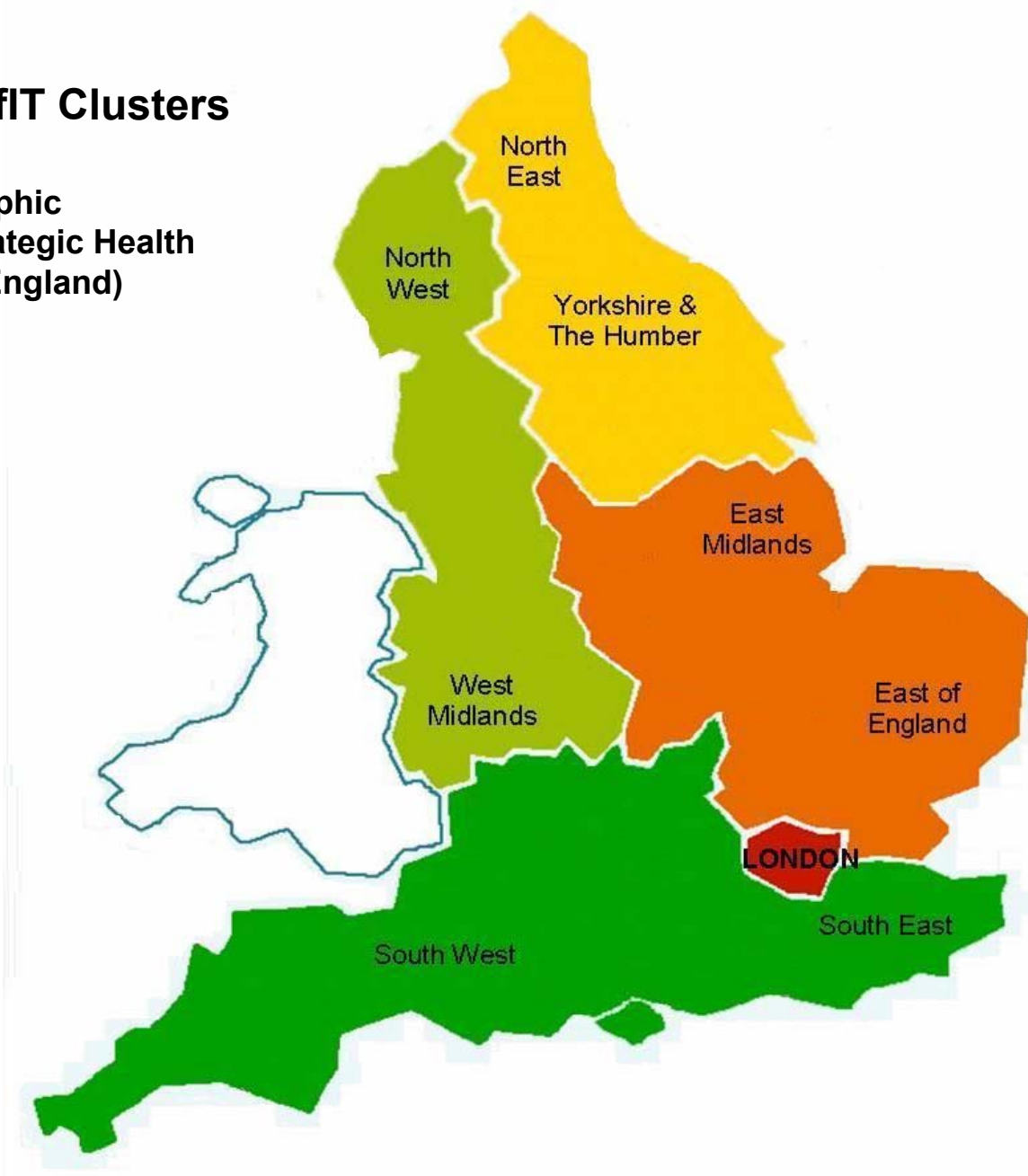
Procurement

- NPfIT was one of the largest single IT procurement programmes in the world
- The National Programme aims :
 - Implement rapidly, with solutions that are responsive to business needs
 - to provide value for money
 - to optimise the cost of participation in the procurement by suppliers
 - 17 Bidders took part



The Five NPfIT Clusters

(NPfIT's geographic grouping of Strategic Health Authorities in England)



Local Service Providers (LSPs)

- Provide IT systems and services, in the five geographic clusters dividing England
- LSPs are managing **multiple partners / vendors**
 - Ensure that the national applications can be delivered locally
 - “Ruthless application of standards”
 - Ensure that national standards are met
 - HL7 v3
 - SNOMED CT
 - Decision support / Knowledge Management framework
 - Ensure local business needs are met



LSP (Local Service Provider)

LSP contracts awarded to

BT – London - IDX

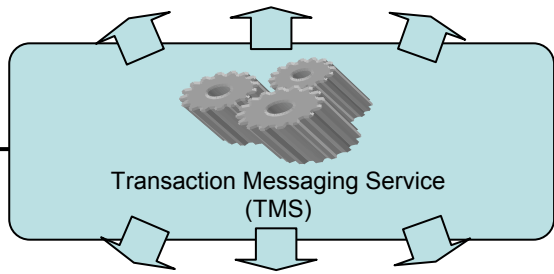
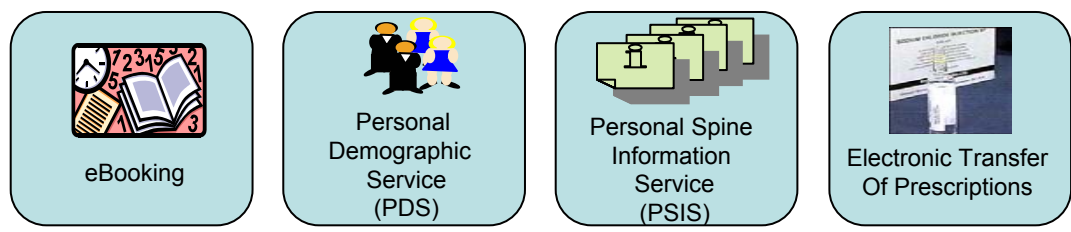
Accenture – North East and East - iSoft

CSC – North West & West Midlands – iSoft

Fujitsu – South and South West - IDX

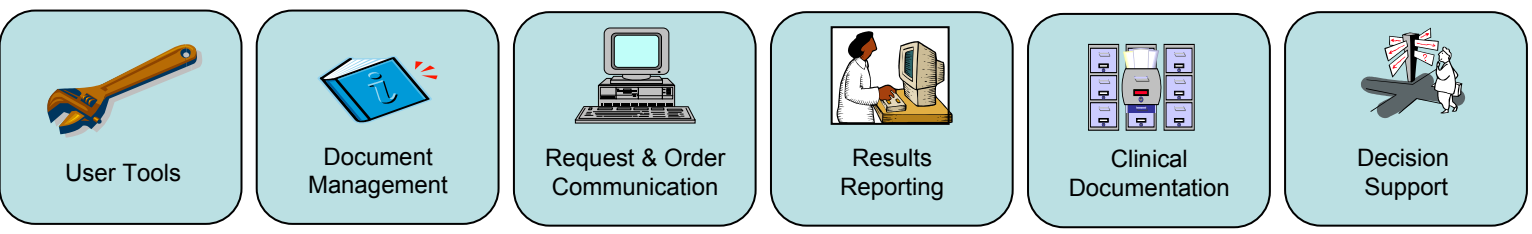
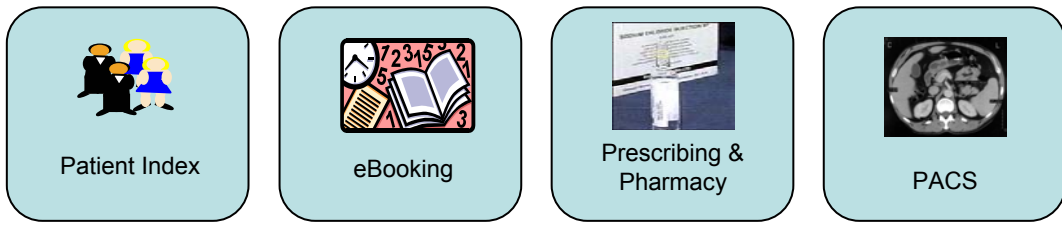


Service Components



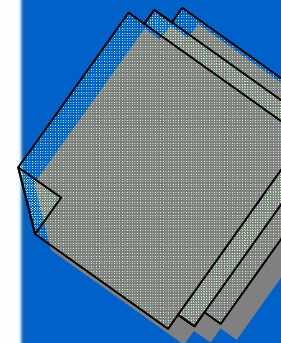
NASP

LSP



Policy Context

- This didn't happen overnight – 20 year lead in
 - Information Strategy 1992
 - 'Information for Health' document September 1998
- Vendor Standards started 1994 (RFA)
- 'Building the Information Core: Implementing the NHS Plan' January 2001
 - Denis Protti's Reports
- 'Delivering 21st Century IT, Support for the NHS' June 2002
 - Derek Wanless
- NPfIT October 2002



Electronic Prescribing in the NHS

- Primary Care
 - Almost ubiquitous
 - Range of systems
 - 3 main ones
- Acute / Secondary care
 - Less than 10 hospitals
 - Old systems



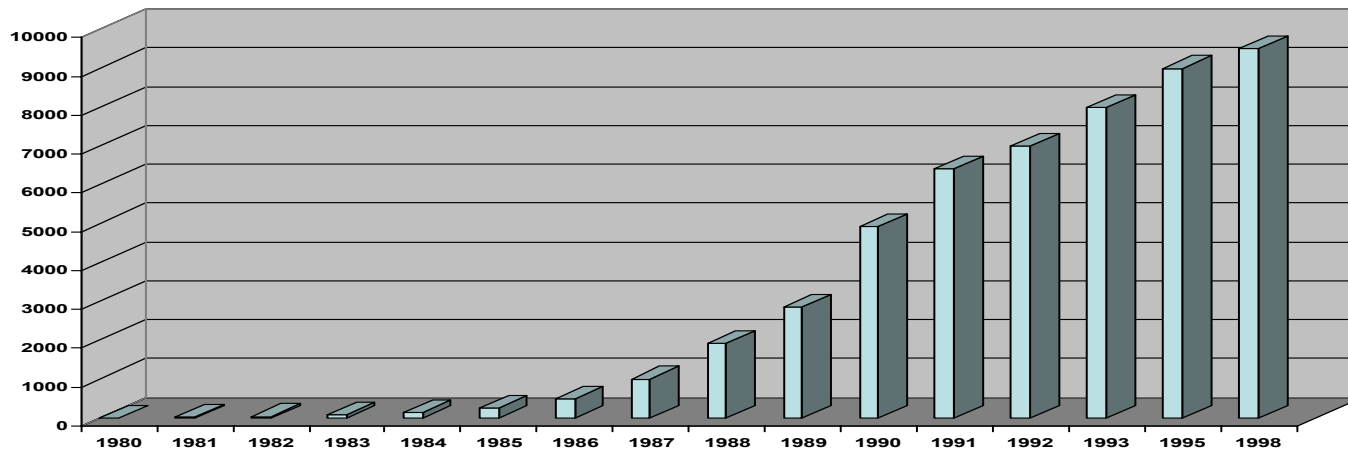
Computerisation in UK Primary Care

- Only 100 practitioners (out of 30,000) are **not** CLINICALLY computerised
- 95 % of all PC prescriptions are produced electronically from *clinical* information systems
- We are *almost* in the position to transfer the record between systems with semantic integrity – data is structured and coded
- Not the same in other sectors
- Must be made so for future safety of care



Primary Care Computing in England

- Unique problems
 - Funding
 - Legacy conversion – coding / context / structure
 - Context between systems
 - Organisations have organised themselves round the 'solution'



ETP vs. EPrescribing

- ETP is a small part of the picture
- EPrescribing is the whole picture
 - Decision to prescribe
 - Prescribing decision support
 - Transfer of the prescription
 - Dispensing process
 - Administration event
 - The shared medication record



Decision Support



“Human beings
make mistakes
because the
systems, tasks
and processes
they work in are
poorly designed”

Lucian Leape - Harvard



Clinical Design

- Safety as a starting point
- Drawing upon the 'best of the best'
- Mobilising the organisational and buying power
- Common User Interface Project
 - Partnership NHS and commercial partners
 - Industry architects
 - Ergonomics
 - Award winning designers



Raising the hurdles

- Over all areas of clinical computing
- Review of GP clinical systems
 - Inconsistency of behaviour
 - Inconsistency of alerting
 - Updates not applied
- Standardisation
 - Alerts
 - Behaviour
 - Database



What does this mean ?

- 1 terminology - **SNOMED CT**
- 1 terminology server – **Health Language**
- 1 drug database – dm+d - **UK SNOMED extensions**
- 1 drug decision support – **First Data**
- Decision support framework – **Map of Medicine**
- 1 Knowledge source - **National Electronic Library for Health**
- All backed by a standards board
- No exceptions !



LY for Windows (C) 2001 EMIS

File Edit View Insert Settings Macros Favourites Help



o.30754. Mr Penicillin Allergy, 50 Tow

Prescriptions

Item

1	Penicillamine	Tablets	125 mg
2	Penicillamine	Tablets	250 mg
3	Penicillin V	Elixir	125 mg/5 ml
4	Penicillin V	Elixir	250 mg/5 ml
5	Penicillin V	Tablets	250 mg
6			



Date	Drug	Iss	Dosage	Quantity	Preparatic
> 27/05/2003	PROPRANOLOL tabs 10mg		TAKE ONE 3 TIMES/DAY	28	tablet(s)

Navigation icons: back, forward, search, print, refresh, etc.

Miss Danielle Wilson



Drug Check Results Mr ASTHMA REPEAT 001 010 1101

The following information may be relevant to prescribing SALAMOL cfc free inh 100micrograms/inhalation to this patient.

Drug-Drug Interactions for SALAMOL cfc free inh 100micrograms/inhalation

-  **PROPRANOLOL tabs 10mg Beta blockers (particularly non selective) will exacerbate asthma**

Drug Doubling for SALAMOL cfc free inh 100micrograms/inhalation

-  **SALAMOL cfc free inh 100micrograms/inhalation**

Close


Help

View >>



Standards in warnings

:: drug warning caution!



The patient has had **severe congestive cardiac failure**.

Celecoxib and other **NSAIDs** are contra-indicated drugs for patients with this condition as it may cause **severe exacerbation of heart failure**.

Prescribe with caution.

[Find alternative](#) [Override](#)

Potential drug contra-indication



Standards in Behaviour

- Drug / Drug Interaction
 - Text
 - Dialog
 - Functions
- Prescribing behaviour
 - Methotrexate
 - Penicillin / Penicillamine
- Patient Advice Leaflets
- Standard reference material for clinicians and patients





Copy of Initial View 7

- Initial Filter
- 1 Problems
- 1 Consultation
- Allergy & Intolerance
- Recalls
- Medical History
- 1 Therapy
- Lifestyle
- Examination Findings
- Immunisations
- Miscellaneous
- All Test Results
- New Registration Exam
- Well Person Clinic
- HP Interventions
- Disease Registers
- Asthma

- Incomplete Registration**
- Allergy Status not reco...**
- Add Allergy
- Add No Allergy
- Health promotion**
- Clinical information missing
- Immunisations Due in ...**
- Poliomyelitis 1st 01/02/1949 ...
- Tetanus 1st 01/02/1949 o/d
- Unprinted Therapy**

Prodigy Index (hierarchical)

- Appointments
- Patient Select
- Patient Details
- Problems
- Consultations
- Journal
- Filtered
- Summary/Grid
- Tests
- Therapy
- Problems

- Current
- Scripts
- Repeats

Date	Drug	Iss	Dosage
15/07/03	METHOTREXATE tabs 10mg		1 EVERY DAY

METHOTREXATE tabs 10mg

Intervention

- METHOTREXATE tabs 10mg Supply (28) tablet(s) 1 EVERY DAY

Driven by:

- Ministerial Task Force
- National Patient Safety Agency
- Standards
 - Information Standards Board (ISB)
 - HL7
- Design Authority and Technical Office



Conclusion

- The National Programme for IT is an exciting place to be !
- Change is occurring throughout the NHS in England
- This is neither rocket science nor science fiction
- Focus is safe personalised and patient centred care



Conclusion

- Biggest and most complex venture ever attempted in health
- If we want to truly give our patients the best care possible we must rise to the challenges
- ePrescribing is definitely part of the picture.



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