

Requirements and standards with clinical insight

Clinical Interoperability



Information and technology
for better health and care

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Sharing is learning

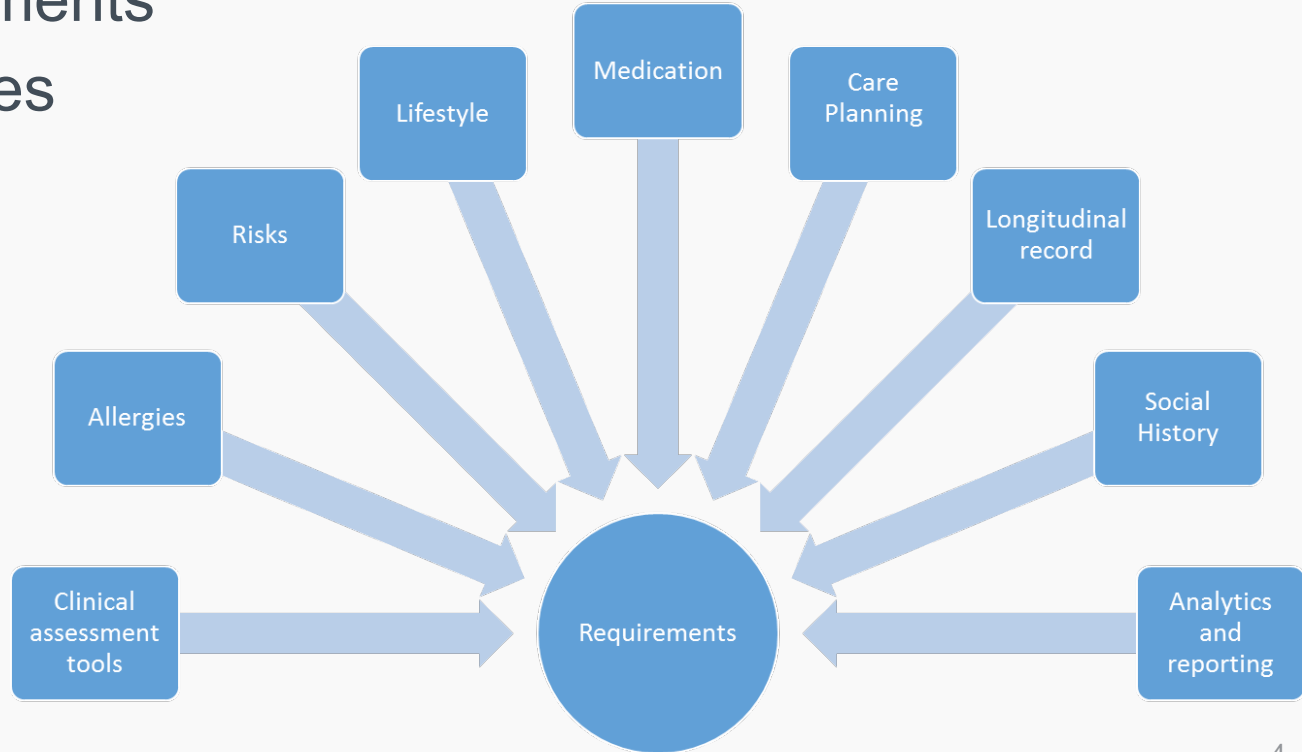
- Share experience of effective and successful IT development
- Two nations, different approaches: Same outcomes
- Role of team and members: Clinical leader and informatician
- Is there a magic formula??

Welsh Information System for Diabetes Management (WISDM)

- Drivers and Policies: Not new, long existed
- Requirements and project management
- Strategy: once for Wales
- Approach: Clinical Leader and Champion
- Baseline: Requirements

Absolute building blocks

- Requirements
- Use cases



Do any Signs, Symptoms or Previous Medical History suggest there may be Peripheral Arterial Disease

Select...

Presenting Signs and Symptoms suggestive of Vascular disease

(record any symptoms, abnormal colour or temperature gradient or skin changes that might suggest Vascular disease)

Right

Palpable

Dorsalis Pedis/Anterior Tibial

Left

Palpable

Palpable

Posterior Tibial

Palpable

Doppler Assessment of Foot Perfusion

Which doppler assessments

☐ Doppler Auscultation

☐ Ankle Systolic only

☐ Arterial PPG Waveforms

☐ ABPI

☐ Arterial PVR Waveforms

☐ TBPi

Left

PT

DP

Right

PT

DP

Arterial Doppler Sounds
(Qualitative)
(Monophasic or Polyphasic)

Select...

GENERAL FOOT CARE		Circle correct answer		
Feet clean	Yes	No		
Skin integrity	Intact	Moist	Dry	
Interdigital areas	Normal	Macerated	Dry	
Callus	Thick	Thin	Nil	
Sock/shoe clean & well fitting	Yes	No		
Shoes appropriate	Yes	No		
Orthotics/prosthesis	Yes	No		
Nails	Right	Left		
Thickened:	Yes	No	Yes	No
Fungal infection:	Yes	No	Yes	No
Ingrown:	Yes	No	Yes	No

ASSESSMENT OF NEUROLOGICAL STATUS

Symptoms of neuropathy	Right	Left
Pain	Yes No	Yes No
Burning, Numbness, pins & needles	Yes No	Yes No

ASSESS SELF CARE CAPABILITY

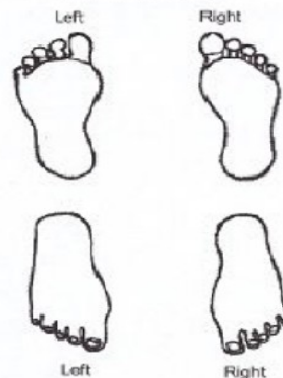
Understands the effects of diabetes on feet	Yes	No
Can identify appropriate foot care practices	Yes	No
Feet adequately cared for	Yes	No
Impaired Vision	Yes	No
Able to reach feet for safe self care	Yes	No

Previous Foot Assessment- Date _____ Yes ☐ By Whom _____ No ☐

Diabetes Education in last 12 months: Yes ☐ By Whom _____ No ☐

Surname: _____
Given Names: _____
UR No: _____

(AFFIX PATIENT LABEL)



Draw in deformities such as callus, corns, redness, hammer / claw toes, heel cracks

ASSESSMENT OF VASCULAR STATUS

Symptoms of Peripheral Vascular Disease	Right	Left
Dorsal Pedis palpable	Y N	Y N
Posterior tibial palpable	Y N	Y N
Feet Cold to touch	Y N	Y N
Hair on feet	Y N	Y N
Gangrene	Y N	Y N
Amputation	Y N	Y N
Intermittent Claudication / rest pain	Y N	Y N
Ulcer present	Y N	Y N
Pallor on elevation	Y N	Y N

Catalogue of Various Clinical Examinations

- ? mandatory.
- ? clinical details of appropriate for setting / profession / disease.
- ? sign-off.
- ? Data Dependency to various audits etc.
- ? Business logic details.
- ? Clinical Decision Support.
- ? compliance with:
 - legal.
 - professional.
 - RCH codes.
 - CHC codes.
 - HCCP
 - I.C.
 - patient safety etc.
- ? spec. for protocolised templates

All below are F.T.

- Respiratory Rate.
- Breath Sounds.
- Percussion note.
- Chest Expansion.
- 6 other.....

Abdominal System

Jawed YIM
F.T.

Organomegaly YIM
F.T.

- Any Abnormal masses palpated YIM
if Y > F.T.
- other.....

Eye System

- Visual Acuity
! use orthoptists work
- Pin Hole
! do above.
- Funduscopy
F.T.

Cranial Nerves
F.T.

? Other Examinations

1. Blood pressure.

- Site: F.T.
- Position: F.T.

- ? list - sitting
- standing
- lying.

- cuff type / size.
- machine used.

values sps Numeric
dias Numeric

- ! record Date.
- ! maintain & present list his toxic values.

2) Pulse

- Radial.
- Site Brachial.
- other.
- Comments F.T.

3) J.V.P.

values within range.
F.T. Abnormal.

4) Heart Sounds.

values normal
Abnormal.

5) Murmurs

Further Nerve Sys Ar
J) of Lower Limbs. LER

Sensation.

- Bulk.
- Tone.
- Strength.
- Proprioception
- Co-ordination.
- Reflexes.

Same for
R & L upper
limbs

Triceps
? Biceps.
? Supinator.

- Ankle.
- Plantar.
- Knee.

User to access / update above (each) as required. ! To be free text.

4) Vascular Assessment of Feet L & R

4a. Pulse

- @ PT.
- @ DP
- @ popliteal.
- @ Femoral
- @ other

Values one of the following.
- present.
- Diminished.
- Absent.
- Not tested.

4b. Capillary Refill

Site: F.T.

Value within normal range.
Abnormal.

Foot Assessment

1) General Appearance.

Free text.

include info on: structure, colour, warmth, any previous amputation, scars, wound/ulcers, bandage.

2) Peripheral nervous system

2a Log monofilament

@ L & R / 100%

- Values - 1) Normal
- 2) Abnormal.
- 3) Diminished

if 3 -> where.
! list / Radioham 1st / 3rd toe.
1st / 3rd / 5th MTP

User to be able to select one or more from above.

+ free text comments F.T.

2b Vibration

- @ 1st toe.
- @ ankle.
- @ Knee
- + comments F.T.

? to be mandatory

? to be updated @ each MI Ar

2) Current Medication List *

- ? What is current
- ? repeat.
- ? previous.

3) Allergies & intolerance *

4) Past Medical History *

- what's past.
- how recent
- ? Active / inactive.

5) Diabetic Complication

6) Family history

7) Social History

- Smoking: Y / N / Ex -
if Y
- Alcohol: Y / N if Yes
- Driving: Y / N if Yes
- Prenatal Counselling

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CONFERENCE ABSTRACT

Integration through Practitioner Owners

17th International Conference on Integra

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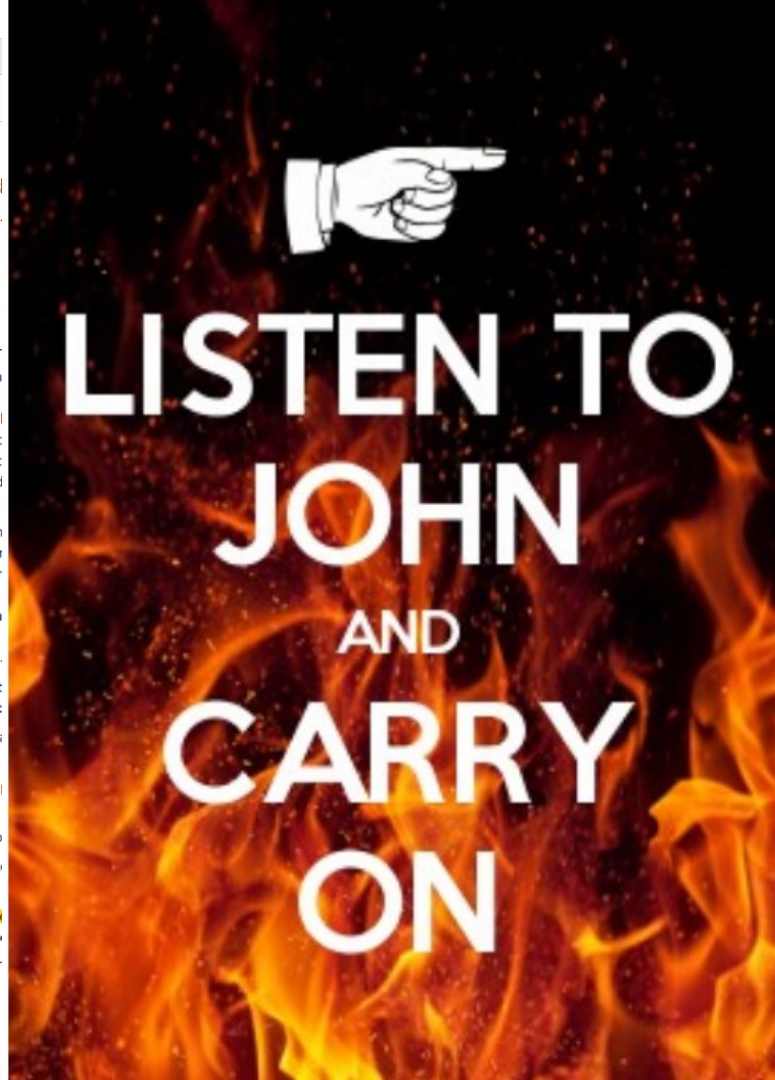
Background: Development and provision of health Prudent healthcare¹, centred around individual's Government (WG). Amongst the multitude of chall of 'High-need, High-cost'^{1,2} population with c healthcare economy the greatest. Provision of c care-providers in more coordinated and integrated demonstration of outcomes.

Objective: In recognition of the policy direction on of joint Health and Social care a Welsh Commu currently underway. Development and re-design recording, which are consistent across and within addressing the aforementioned challenges and rea

Highlights: Senior sponsorship and endorsement clinical record and process across Wales, from the Advisory Committee (WTAC) and clinical informat Service (NWIS) has enabled National consensus on:

- a) Standardised therapy core data items: data information
- b) Standardised and clinically assured set of Uni templates, clinical reference data and in progress
- c) Specification for current and future informatio
- d) Model for effective communication between an

This is a significant clinical and behavioural consequence in form of **increased trust in professi** Inter-professional integration in defining and sp utilised in developing national standards for vario clinical record for Diabetic patients by the Diabetologists.



Sign In

clinical leadership and ownership of the above ng to development of first in class **Clinical** . In complement the model has the potential to boundaries, through utilisation and sharing of pliant with clinical, professional, information

h NHS Wales are portable, these should be of d care boundaries of UK. Provision of evidence pmon challenges affecting the developed world gument.

at hand to collaborate with NWIS in scaling and alternative bottom up approach empowering catalyse whole system wide transformation. In nning formula' interest from colleagues in New Medical Colleges etc is being progressed.

teroperability; empowerment; leadership

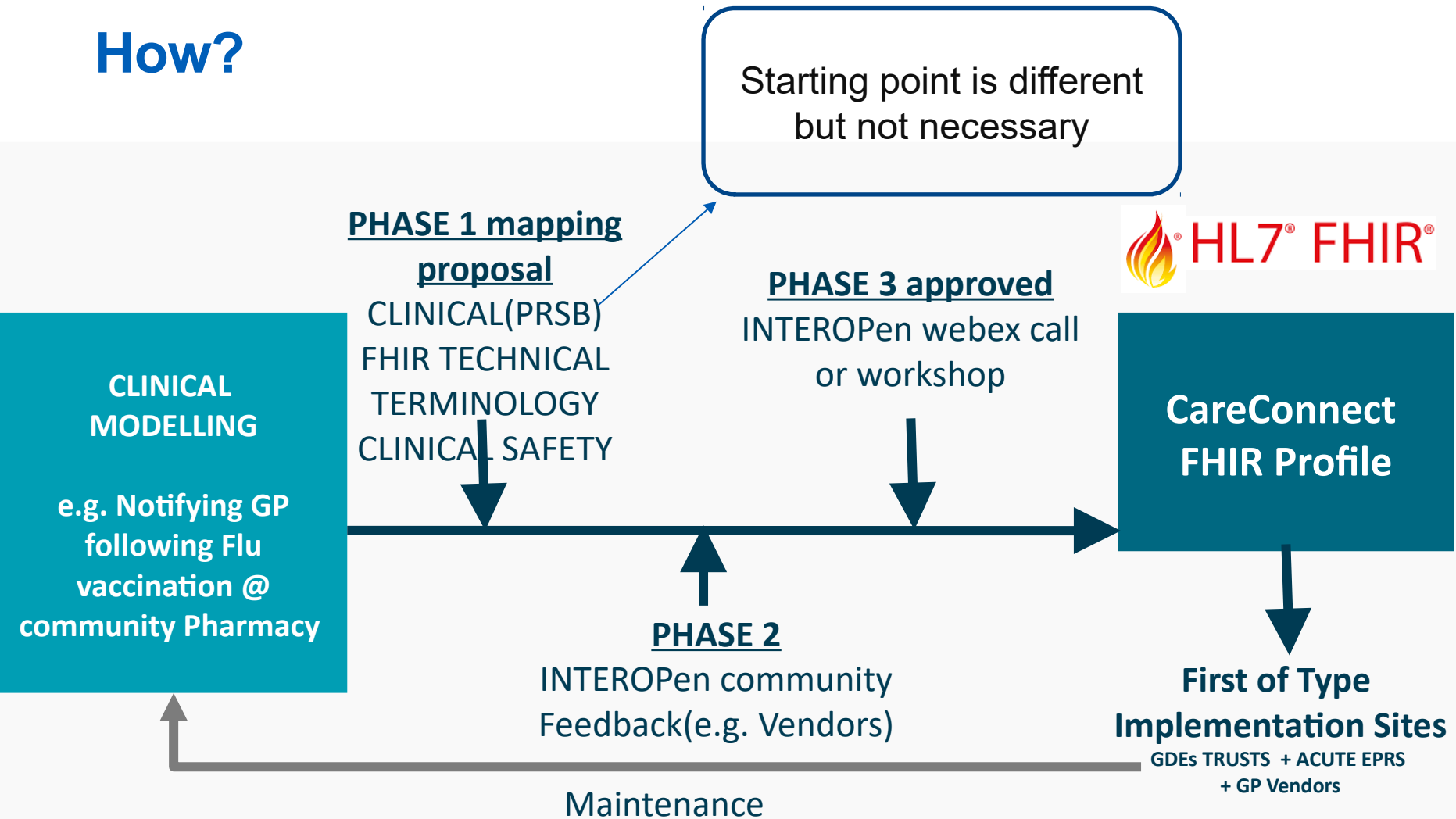


NHS Digital INTEROpen: FHIR Curation

What is FHIR curation/How do we do we need curation?

- **What :**
 - Mapping use cases to FHIR resources (with SNOMED CT bindings).
- **Why:**
 - The curation process develops FHIR profiles: **fit for purpose** both clinical and technical input.
 - Has **helped those who will be implementing** the headings understand the rationale and detailed content. It also challenged the clinical requirements where they were insufficiently detailed, resulting in a more robust definition
 - **Consistency** in the use of FHIR profiles (leading to better interoperability), Better profiles with consistent value sets.
 - Create a single working group of clinicians, clinical informaticians, technical modellers , terminologists, clinical safety and vendors **working together**

How?



Summary and Next steps

- **Collaborative and constructive** consultation process with wide & enthusiastic **Participation**.
- Transition to Business as Usual/Service with revised process and review tooling.
- **Essential**. No one organisation could do it with any hope of a workable outcome.

Outcomes: developed profiles

- 4 Transfer of Care Use cases: Discharge Summaries (OP, MH, ED, IP)
- Flagging needs for patients with needs for Reasonable Adjustments
- Pharmacy: Vaccination Notification and Emergency Supply of medication
- Digital Child Health and others....

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