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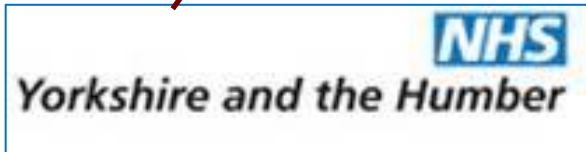
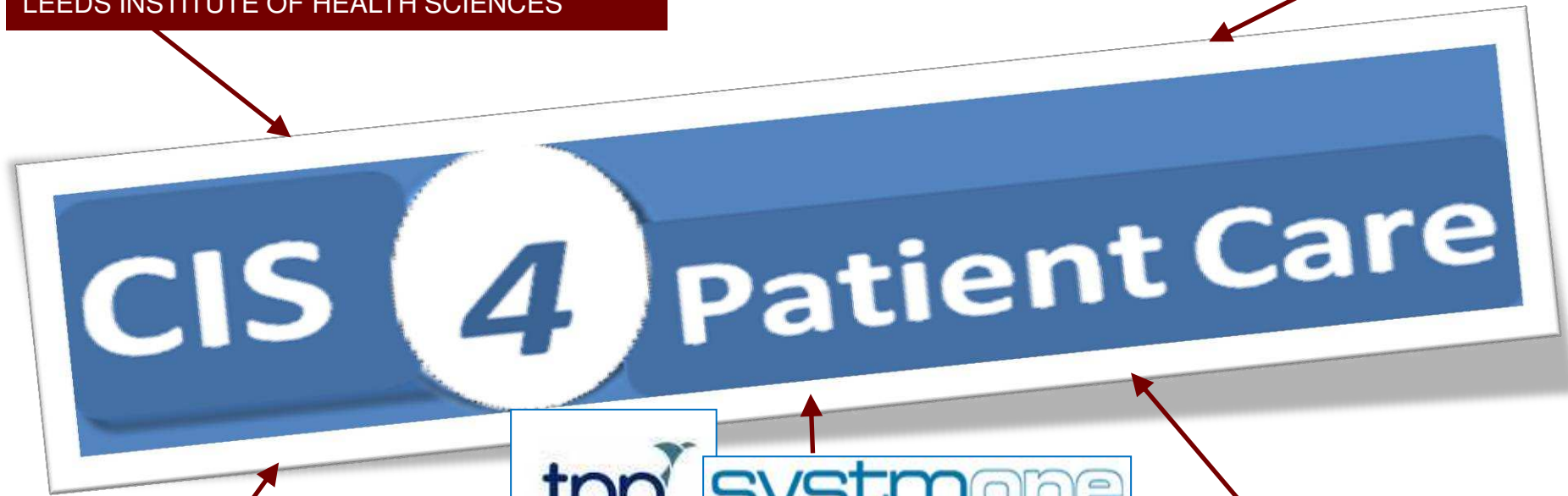
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Academic Unit of Primary Care
LEEDS INSTITUTE OF HEALTH SCIENCES

Yorkshire Centre for Health Informatics
LEEDS INSTITUTE OF HEALTH SCIENCES



The session a standard 10 minute presentation

- the **C**linical **I**nformation **S**ystems for **P**atient **C**are (**CIS4PC**) project work
- Brief examples of how the University of Leeds delivers health informatics teaching through **CIS4PC** content and how we worked together to integrate health informatics and the technology into clinical teaching

5 minutes of questions

Health informatics and interactive use of technology are essential tools for health care providers/practitioners, ***yet there is still limited access for students in a safe learning environment.***

The health professionals of tomorrow **need to experience the technology** as students in order to be better practitioners when qualified.



Task Menu **Patient Clinical Summary** **Log out**

LIBURD, Jean Born 05-May-1942 (66 yrs 10 months) Gender Female CHI 060 542 0521
Address TOP FLAT, 77 OLD PARK ROAD, LEEDS, LS4 1JB

Patient Clinical Summary

Date	Term	Status
24-Mar-2009	Consent given for upload to local shared electronic record	
02-Feb-2009	Consent given for upload to local shared electronic record	
02-Feb-2009	Refused consent for upload to local shared electronic record	
30-May-2008	Letter from specialist	
30-May-2008	Medication increased	
28-May-2008	Thrush	
28-May-2008	Productive cough -green sputum	
28-May-2008	O/E - resp. examination NOS	
28-May-2008	O/E patient well	
19-May-2008	Thrush	

Issue date	Type	Drug	Dosage	Quantity
25-Mar-2009	R	SALBUTAMOL breath act pwrdr inh 100micrograms/actuation	INHALE 1 DOSE AS NEEDED	1
26-Feb-2009	A	PARACETAMOL caps 500mg	TAKE TWO 4 TIMES/DAY	80
26-Feb-2009	A	H-F ANTIDOTE topical gel 2.5%	10ML	25
26-Feb-2009	R	RABBIT FUR tabs 30c	TAKE 1 OR 2 AS DIRECTED	125
08-May-2008	R	GAUVISCON ADVANCE st oral susp	5 ml 4 times daily	500
08-May-2008	R	TELSARTAN/tabs 80mg	TAKE ONE ONCE	56

Date	Term	Status
25-Feb-2009	Very heavy smoker - 40+cigs/d	Smoker
25-Feb-2009	Alcohol consumption	Currently Drinks
28-May-2008	Never smoked tobacco	Never Smoked
10-Mar-2008	Non-smoker	Never Smoked
04-Jan-2008	Alcohol consumption	Currently Drinks
17-Dec-2007	Ex-smoker	Ex-smoker
20-Apr-2007	Never smoked tobacco	Never Smoked
01-Nov-2006	Never smoked tobacco	Never Smoked
20-Oct-2005	Never smoked tobacco	Never Smoked
07-Jun-2005	Never smoked tobacco	Never Smoked

Date	Term	Value	Units
19-May-2008	O/E - blood pressure reading	164/82	mmHg
08-May-2008	BM	28.1	kg/m2
08-May-2008	O/E - blood pressure reading	171/90	mmHg
08-May-2008	O/E - weight	65	kg
12-Dec-2007	O/E - blood pressure reading	148/83	mmHg
22-Nov-2007	BM	20.7	kg/m2
22-Nov-2007	O/E - height	1.52	Meters
22-Nov-2007	O/E - blood pressure reading	162/82	mmHg
22-Nov-2007	O/E - weight	48	kg
30-Oct-2007	O/E - blood pressure reading	172/82	mmHg



Health informatics technology is now common in both primary and secondary care settings

To ensure **healthcare professionals** across
Yorkshire and the Humber are better able to use
Clinical Information System (CIS)

and

that **the use of CISs** to teach **clinical medicine** is
maximised at undergraduate and postgraduate
levels and in continuing professional development.



The Project

Giving under/postgraduate students access to a 'live'
Clinical Information System (TPP *systemone*)

The aim is not to teach the system but to enable students to
**appreciate, access and navigate any Clinical
Information System**


CIS4PC uses *rich patient records* developed with varying
chronic diseases and backgrounds to aid the students 'live'
learning experience.

- Students access the 'live CIS system' and use individual patient records to support their learning

Aim: To raise awareness of Clinical Information Systems (CISs) in the UK and how they are used to facilitate a comprehensive approach to effective and efficient management of patient information.

Learning Objectives:

- Have a better understanding of health informatics and its role in patient care
- Be aware of the available CISs in the UK
- Be more aware of the content and uses of a patient's CIS record
- Recognise the communication skills needed to enhance patient/multi professional communication
- Be more aware of the professional attitude needed to interact with patients, their records and other health care professionals.



**Introducing
Clinical Information
Systems**

Aim: To enable students to navigate a Clinical Information System (CIS)

Learning Objectives:

- Understand the term 'health informatics'
- Navigate and record patient information electronically
- Understand personal & professional responsibilities, especially accurate record keeping, when working with patients & other professionals using CISs
- Appreciate the value & importance of clinical coding

Navigating
the Clinical Information System
Electronic Patient Record

Example: Tool for Navigating CIS



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Student: «Surname», «First Name»

Clinical Information Systems for Primary Care (CIS4PC)

Session 1 - TASK 1 – DATA ENTRY

To start this CIS: SystemOne
SystemOne has been set up on your Desktop.

Use the username and password shown in the next box to login to the system.

SystemOne username and password

Username: «Username»
Password: «Password»

New Patient Questionnaire

Welcome to the Worsley Medical Centre.

To allow us to offer the best service to you we need a few details about you and your health.

Patient Name «Patient_Forenames» «Patient_Surname»	Date of Birth 08/07/1968
Address 3 St Michaels Terrace Leeds	Place of Birth Northampton
Postcode LS6 3BQ	Ethnic Origin British
Mobile Number 079540475069	Marital Status Married
Home Number (0113)23934327	Next of Kin Husband Riley
	Occupation Retail buyer

Name and Address of previous GP: Headingley Group Practice
North Lane, Leeds LS6 8QR

Height: 168 cm Weight: 67 kg

Please circle what best describes you and your activities:

Smoking: Never Ex-Smoker **Smoker** - 18 per day

Exercise: Light **Moderate** Heavy

Alcohol: Units per week 8
(1 beer = 2 pink units, 1 short = 1 unit, 2 small glass of wine = 2 units)

Your medical history: Please tick if you have ever suffered from:

Asthma Depression **Hypothyroidism** Diabetes Epilepsy
Heart Attack or Angina Stroke COPD **High/Low Blood Pressure**

To the LEFT you will find a completed 'New Patient Questionnaire' form.

Your task is to:
[1] locate existing data and
[2] enter as much of the 'new' data as possible into the CIS.

The patient has already been registered with these details.

They can be found via the 'Administration' tab to the left of the CIS screen.

Administration

New Patient Questionnaire (continued)

Please list any other medical conditions you have and any operations with the date they occurred:

Operation	Date
Appendicectomy	1998

Allergies
Have you ever been allergic to any medication? Yes **No**
If yes, please list the medicines:

Drug	Date

Do you take any regular medication? Yes No
If yes, please list and attach a copy of your repeat medication slip

Drug	Dose
Isopropamide	2.5mg daily
Perindopril	4mg daily
Levothyroxine	125mcg daily

Children's vaccination history: Please list all vaccinations:

Vaccination	Date

Ladies smear tests
Have you ever had a smear test? Yes No
When was your last smear test? 2003

Have your parents/siblings had any serious medical conditions? Yes No
If yes, please tell us which relation to you and what condition they have?

Relation/Current Age	Condition/Date of Occurrence
Mother, aged 70	Stroke when 80
Father, aged 63	Diabetes about 5 years

[FOR PRACTICE USE ONLY]

BP: 129/88
Urine Dip: **NAD** (No Abnormality Detected) (Negative)
Recorded on system:
Letter to follow:
Indicators:

Enter using READ CODE

Summary & Family History

Enter in Sensitivities and Allergies

Set up each medication as a Repeat Prescription and link it to the health problem

Enter using READ CODE and date in:

Summary & Family History

Enter using FH button in

Summary & Family History

Enter in patient profile template

Enter in urinalysis template

This will trigger READ CODES

Clinical Information Systems and the Consultation

Aim: To enable students to effectively use the Clinical Information System (CIS) to enhance the patient consultation.

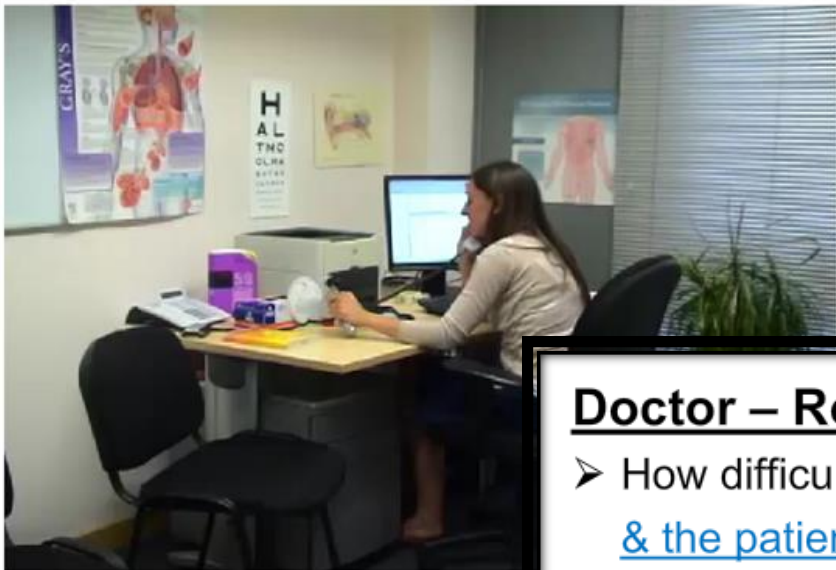
Learning Objectives:

- Appreciate the influence of the CIS/computer on the patient/professional consultation dynamics
- Investigate & explored a CIS/patient's Electronic Health Record (EHR)
- Accessed & interpret entries within the EHR
- Assess, plan, implement & recorded a plan of care
- Gain a better understanding of personal/professional responsibilities, behaviours & actions e.g.: record keeping, clinical coding
- Enhanced ability to work with patients/others, using the CIS

Example: Tools used for exploring use of the CIS in a consultation



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Doctor – Role Play

- How difficult was it to remain focussed on the consultation & the patient as opposed to the consultation & the CIS?
- Did the feedback raise issues you were **NOT** aware of?

Patient/Observer – Role Play

- How easy was it to construct feedback whilst playing the patient?
- What were the key issues that need to be addressed in order to 'effectively use the computer in the consultation'?

Clinical Information Systems and Chronic Disease Management

Aim: To enable students to effectively use a Clinical Information System (CIS) to manage the care of a patient with a Chronic Disease.

Learning Objectives:

Review a patient with Diabetes and used the CIS to:

- Assess the patient's history
- Plan their future care/treatment plan
- Review &/or Prescribe their medication
- Liaise with other professionals
- Consider/apply appropriate coding to facilitate QOF and Audit





Example: Tool used in Chronic Disease Management session



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CIS 4 Patient Care

Handout to support teaching

Input the log in details and specific PATIENT on your OWN log in sheet			
Task	Content	Advice	Done
1	Access and interrogate the patient's electronic record	Look into the patient record to find relevant details and basically how to navigate the system	
2	Complete the Diabetes template	This can be found in the table to the left of the screen titled ' CLINICAL '. At the bottom is ' QOF ' Click on the ' + ' sign and you will find the template. Right Click on the template to open it. BP 164/96 ECG Normal	
3	Complete QRisk2 Calculation	In the titles header bar you will find 'Clinical Tools' select and complete	
4	Send a referral to the Dietician	There are several ways this can be done: In the table to the left of the screen titled ' CLINICAL ' <ul style="list-style-type: none"> - select 'Communication & Letters', - Right Click, select 'New Letter' <ul style="list-style-type: none"> o Sender 'This organisation' o Recipient 'A SystemOne user' o Select 'OK' - Type in (name of session lead) [then search] o Select 'OK' <p>RECIPIENT: pre filled in</p>	 

CIS 4 Patient Care

Handout to support teaching

		<p>SENDER: Add your own name</p> <p>WRITING:</p> <ul style="list-style-type: none"> o Letter Type: select 'Referral' o Editor: select 'MS Word' o Template: select 'Diabetes Referral Form' <p>- Select 'Write Now'</p> <p>If any 'error' messages appear, click 'okay' until referral opens.</p> <p>- select 'Send' or 'Amend later'</p>	 
5	Prescribe / Review appropriate medication	Consider the information gained at the consultation. What medication needs added to the patient's current medication?	
6	Send a task to another professional involved in patient's care	In the titles header bar you will find either the icon ' Task ' or under the Workflow header ' New Task ' Select: University Worsley Practice , Send to: (name of session lead)	
7	Generate a prescription and a ' repeat medication template '	DO NOT PRINT	
8	Record the consultation Apply clinical coding (QOF) as appropriate for audit purposes	Using the ' Start Consultation ' box, record your experience with the patient	

Clinical Information Systems and Prescribing

Clinical Information Systems and
Chronic Disease Management

Clinical Information Systems and
the Consultation

Navigating
the CIS & EPR

Introducing
the CIS

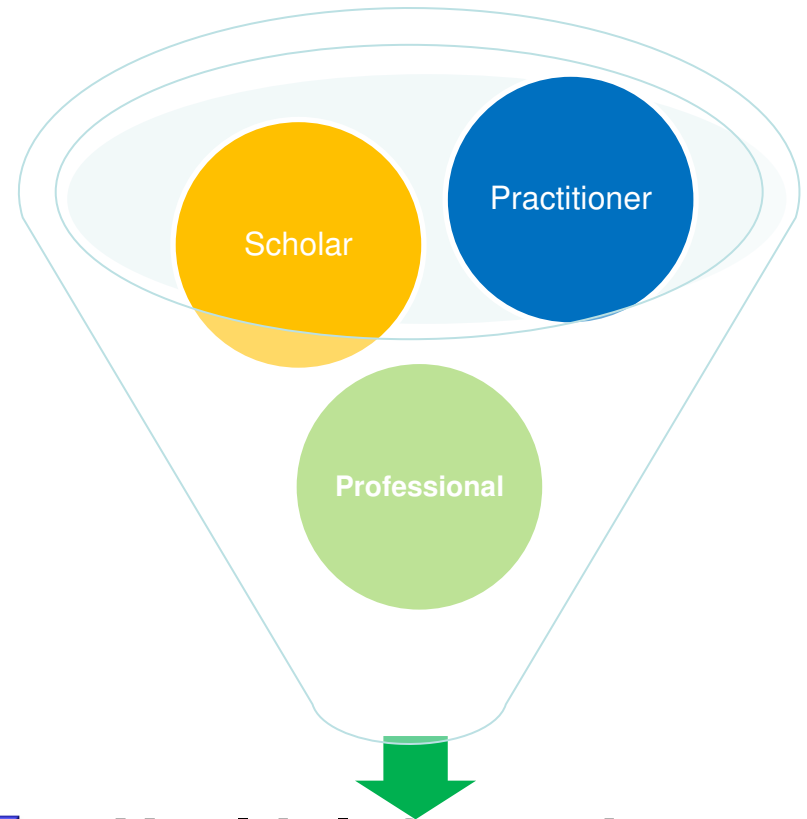
Health Informatics teaching helps shape future health practitioners



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The health professional as:

- a scholar
- a practitioner
- a professional



The teaching can combine the three essential disciplines of scholar, practitioner and professional.

Health Informatics

Outcome: An effective health practitioner who can....



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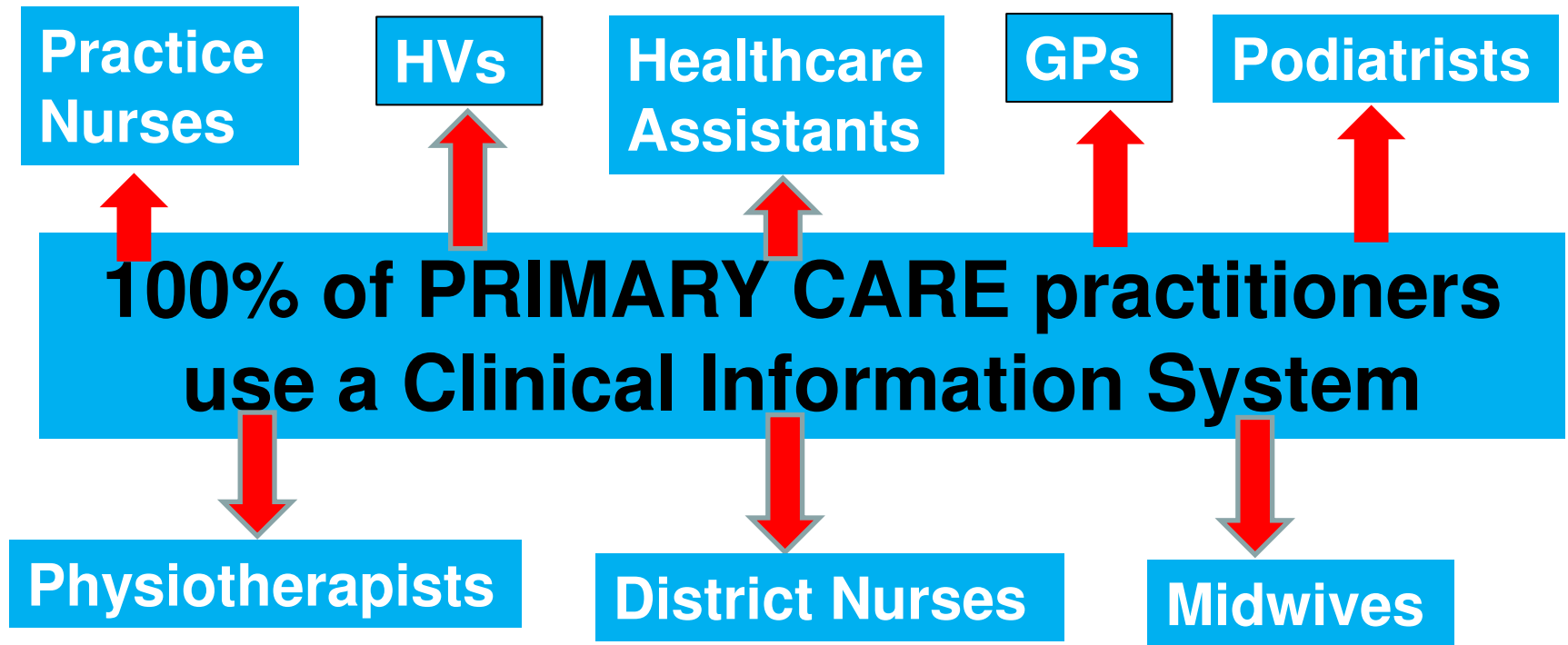
Apply the principles, method and knowledge of health informatics to medical practice

Use information effectively in a medical context

Keep to the requirements of confidentiality and data protection legislation and codes of practice in all dealings with information

Make effective use of computers and other information systems, including storing and retrieving information

Access information sources and use the information in relation to patient care, health promotion, giving advice and information to patients, and research and education



CIS4PC content is transferable/adaptable for all healthcare students:

Resources currently delivered within West Yorkshire to healthcare students in single and multi/inter disciplinary sessions.

University of Leeds: **MBChB & Nursing;**

University of Bradford: **Nursing, Midwifery, Radiography, Occupational Therapy, & Physiotherapy**



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Any Questions?