



## The N.Ireland Regional Cancer Patient Pathway System

Dr Lisa Ranaghan, N.Ireland Cancer Registry (NICR)

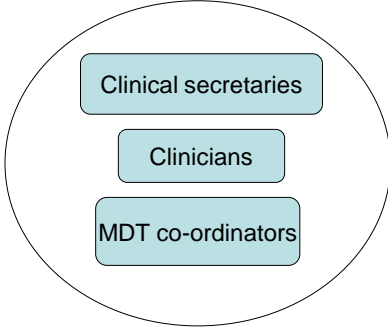
- Benefits for patients
- Benefits for Clinicians/Clinical secretaries
- Benefits for Trust MDT staff/Cancer management
- Benefits for GP's

## NI Cancer Network MDM Database Project

Electronic data capture

Administrative support

TEAM



## Phase I : MDM databases

Lung MDM @ N. I Cancer Centre	
Physician	<input type="text" value="oncologist"/> <input type="text" value="surgeon"/> <input type="text" value="Days left (62 Day Target)"/> <input type="text" value="35"/> <input type="text" value="Days left (31 day target)"/> <input type="text" value=""/>
Diagnosis	Primary lung cancer (path) <input type="text" value="Squamous cell carcinoma"/>
PET	SUVmax = 15.8 (51%), PVC = 25, DQLO % predicted = 59%, FEV1VC = 60%
Co-morbidities	COPD/mild-moderate emphysema Diabetes on glyburamide since 2005 Coronary artery disease - onset 1.87.2005
Bronchoscopy summary	Visible tumour in the right lung. Site: upper lobe bronchus. Endric compression of the right upper lobe bronchus. Final histology/cytology: Squamous cell carcinoma
CT findings:	<input type="text" value="18/04/2006"/> 3cm mass RUL. Right hilar adenopathy. No obvious distant mets.
CT Stage	<input type="text" value="T2"/> <input type="text" value="N1"/> <input type="text" value="M0"/>
PET findings:	<input type="text" value="20/05/2006"/> FDG avid mass RUL, SUV of 12. Hilar adenopathy-SUV 8. No distant mets.
PET Stage	<input type="text" value="T2"/> <input type="text" value="N1"/> <input type="text" value="M0"/> <input type="text" value="3-11M0"/> <input type="text" value="1B"/>
Care plan	Operability: <input type="text" value="Surgically operable if medically fit"/> Treatment intent: <input type="text" value="Surgical"/> Why not curative: <input type="text" value=""/> Planned 1st treatment: <input type="text" value="Surgery alone"/>
MDM discussions	<input type="text" value="LUNG"/> <input type="text" value="SQUAMOUS"/> <input type="text" value="surgical referral"/> <input type="text" value="MDM report"/> <input type="text" value="email to"/>
Date of discussion	<input type="text" value=""/> <input type="text" value="location"/> <input type="text" value="OUTPATIENT"/>
reason for discussion	<input type="text" value="age new: 75"/> <input type="text" value="ECOG 1"/>
reason for viewing	<input type="text" value="Diagnostic work-up"/> <input type="text" value="CT and PET"/>
MDM Update:	<input type="text" value="75 year old gentleman"/>
MDM Action	<input type="text" value="To have CREST and then to have CPD appt with Mr"/>
MDM Decision Date	<input type="text" value=""/>
MDM final diagnosis	<input type="text" value="Primary lung cancer (pathologically)"/>
Referred to oncology	<input type="text" value=""/>
Referred to surgeon	<input type="text" value="Thoracic Sur"/> <input type="text" value="for consideration of c"/>
General Palliative Care	<input type="text" value="Specialist Palliative Care"/>
further investigations	<input type="text" value=""/>
seen by lung cancer nurse	<input type="text" value="The patient has been seen t"/>



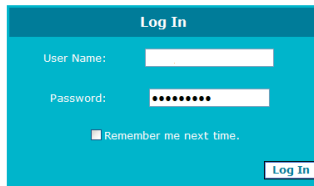
## Phase II

# Cancer Patient Pathway System

## CaPPS Login screen

 Cancer Patient Pathway System

CaPPS is a regional information system for clinical assessment and operational tracking.



The screenshot shows a login form with a teal header. The header contains the text "Log In". Below the header, there are two input fields: "User Name:" followed by a white text box, and "Password:" followed by a white text box with black dots. Below the password field is a checkbox labeled "Remember me next time.". At the bottom right of the form is a "Log In" button.

Performance Reporting is available to registered users on the [HSC Information Management Portal](#).

## CaPPS: patient pathway view

Home > Patient Details HSC Cancer Patient Pathway System [Logout](#) [eranaghan](#) [Password](#) [Add Patient](#) [Schedule MDM](#) [Tra](#)

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Open (Mr) 3 (0) 3 (1) Hospital Number: Gender: HCN: E

GP:	Clinician:	Oncologist:	Surgeon:	T: T2 N: N1 M: M0
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- 📁 Lung(Suspect)10-1-2008
  - 📄 Pathway
  - 📄 Waits
  - 📄 Referrals [1]
  - 📄 Initial Assessment
  - 📄 Investigations [4]
  - 📄 Pathology [0]
  - 📁 MDM [2]
    - 📄 02-3-2009
    - 📄 24-3-2009
  - 📄 CarePlan
  - 📄 Treatment [0]
  - 📄 CLINNS/AHP [0]
  - 📄 Diary [0]
  - 📄 Adjustments [0]
  - 📄 Close
  - 📄 Followup [0]

## CaPPS: Pathway screen

- 📁 Lung(Suspect)10-1-2008
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  - 📄 Initial Assessment
  - 📄 Investigations [6]
  - 📄 Pathology [3]
  - 📁 MDM [2]
    - 📄 02-3-2009
    - 📄 24-3-2009
  - 📄 CarePlan
  - 📄 Treatment [3]
  - 📄 CLINNS/AHP [1]
  - 📄 Diary [0]
  - 📄 Adjustments [0]
  - 📄 Close
  - 📄 Followup [4]

Date	Event
10-01-2008	Consultant Upgrade to 'Red Flag' referred to Belfast City
23-01-2008	First Seen at Royal Victoria
09-02-2008	Bronchoscopy at Belfast City
15-02-2008	Pathology : Bronchial BX
20-02-2008	CT at Belfast City
28-02-2008	PET at Royal Victoria
12-03-2008	Mediastinoscopy at Royal Victoria
30-03-2008	Pathology : Lymph Node BX
02-04-2008	Surgery at Royal Victoria
06-04-2008	Pathology : Lobectomy
01-06-2008	Chemotherapy at Cancer Centre - BCH
11-03-2009	Radiotherapy at Cancer Centre - BCH
24-03-2009	MDM Action : Has commenced palliative XRT.Specialist Palliative Care Team referral has been made
Next Last	

## CaPPS Investigations screen

Home > Patient Details

**HSC** Cancer Patient Pathway System

Logout eranaghan Password

Add Patient

Schedule MDM

Open **(Mr)** **13 (0)** **31 (1)** Hospital Number: Gender: HCN:

GP:	Clinician:	Oncologist:	Surgeon:	T: <b>T2</b> N: <b>N1</b> M: <b>M0</b>
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    - 24-3-2009
  - CarePlan
  - Treatment [0]
  - CLINNS/AHP [0]
  - Diary [0]
  - Adjustments [0]
  - Close
  - Followup [0]

	Type	Date Performed	Location
Edit Delete	CXR	09-2-2008	
Edit Delete	Bronchoscopy	09-2-2008	Belfast City
Edit Delete	CT	20-2-2008	Belfast City
Edit Delete	PET	28-2-2008	Royal Victoria
Edit Delete	Mediastinoscopy	12-3-2008	Royal Victoria

New

## CaPPS Pathology screen

Home > Patient Details

**HSC** Cancer Patient Pathway System

Logout eranaghan Password

Add Patient

Schedule MDM

Open **(Mr)** **13 (0)** **31 (1)** Hospital Number: Gender: HCN:

GP:	Clinician:	Oncologist:	Surgeon:	T: <b>T2</b> N: <b>N1</b> M: <b>M0</b>
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  - Treatment [0]
  - CLINNS/AHP [0]
  - Diary [0]
  - Adjustments [0]
  - Close
  - Followup [0]

	Date Reported	Histology	Specimen Type
Edit Delete	15-02-2008	Adenocarcinoma, NOS	Bronchial BX
Edit Delete	30-03-2008	No evidence of neoplasm	Lymph Node BX
Edit Delete	06-04-2008	Adenocarcinoma, NOS	Lobectomy

New

# CaPPS MDM Screen: staging work up

Home > Patient Details > MDM

HSC Cancer Patient Pathway System Logout

Open (Mr) 31(4) 31(11) Hospital Number: Gender: HCN: Edit

GP:	Clinician:	Oncologist:	Surgeon:	T: T2 N: N1 M: M0
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**Initial Assessment:**

**Diagnosis:** Primary cancer in lung(pathologically verified)

**Histology:** Adenocarcinoma, NOS, (M81403)

**Clinical Summary:** urgent referral from GP-upgraded to suspect cancer after triage. History of cough for 2 mths with haemoptysis for past 4 weeks. Ex smoker

**CT Findings:** 20/02/2008 3.5 cm mass right upper lobe, Right hilar adenopathy & 1.5cm subcarinal node

**PET Findings:** 28/02/2008 FDG avid mass RUL (SUV 18) in keeping with lung primary. Uptake in Right hilar node SUV 12 and uptake in AP window node (SUV 5)

**Pulmonary Function:** FEV1 = 1.0, [85.0%], FVC = 2.2, [88.0%], FEV1/FVC = 81.8%

**MDM Action:** Refer to thoracic for mediastinoscopy

**MDM Update:** RUL adenocarcinoma T2 N1 on CT-?N2 on PET

**Imaging For Viewing:**  CT  PET  Path  MRI

**Reason for Discussion:** None

**Date:** 02-03-2009 **Location:** Belfast City

**MDM Care Plan:** MDM Care Plan

**Operability:** Surgically Operable

**Treatment Intent:** Curative

**Reason Not Curative:** Other, specify

**Referral and Further Details:** Referral and Further Details, Letters, Further Investigations, Save + Generate Letters

# CaPPS: Capturing the MDM Careplan

Home > Patient Details > MDM

HSC Cancer Patient Pathway System Logout

Open (Mr) 31(4) 31(11) Hospital Number: Gender: HCN: Edit

GP:	Clinician:	Oncologist:	Surgeon:	T: T2 N: N1 M: M0
-----	------------	-------------	----------	-------------------

**Initial Assessment:**

**Diagnosis:** Primary cancer in lung(pathologically verified)

**Histology:** Adenocarcinoma, NOS, (M81403)

**Clinical Summary:** urgent referral from GP-upgraded to suspect cancer after triage. History of cough for 2 mths with haemoptysis for past 4 weeks. Ex smoker,

**CT Findings:** 20/02/2008 Enhanced CT shows 3cm mass right frontal region with mass effect also multiple lesions left parietal area. Appearances consistent with metastases fro lung primary

**MDM Care Plan:** MDM Care Plan

**Operability:** Surgically Operable

**Treatment Intent:** Curative

**Reason Not Curative:** Other, specify

**MDM Update:** RUL adenocarcinoma T2 N1 on CT-N2 on PET. Mediastinoscopy-negative

**MDM Action:** For resection

**Referral and Further Details:** Referral and Further Details, Select Letters to Generate,  Oncology Referral,  GP Letter

## CaPPS: Monitoring Cancer Targets

Home > Patient Details > MDM HSC Cancer Patient Pathway System [Logout](#)

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Open 13 (1) 51 (11) Hospital Number: Gender: HCN: Edit

GP:	Clinician:	Oncologist:	Surgeon:		T: T2 N: N1 M: M0
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**Initial Assessment:**

**Diagnosis:** Primary cancer in lung(pathologically verified) ▼

**Histology:** Adenocarcinoma, NOS, (M81403)

**Clinical Summary:** urgent referral from GP-upgraded to suspect cancer after triage. History of cough for 2 mths with haemoptysis for past 4 weeks. Ex smoker,

**CT Findings:** 20/02/2008 Enhanced CT shows 3cm mass right frontal region with mass effect also multiple lesions left parietal area. Appearances consistent with metastases fro lung primary

**MDM Care Plan** ▼

**Operability:** Surgically Operable ▼

**Treatment Intent:** Curative ▼ Surgery ▼

**Reason Not Curative:** Other, specify ▼

02-03-2009 24-03-2009

**Date:** 24-03-2009

**Location:** Belfast City

**Imaging For Viewing**

CT  PET  Path  MRI

**Reason for Discussion:** None ▼

**MDM Update:** RUL adenocarcinoma T2 N1 on CT-N2 on PET. Mediastinoscopy-negative

**MDM Action:** For resection

**Referral and Further Details**

**Select Letters to Generate**

Oncology Referral

GP Letter

## CaPPS: enhanced communication

Home > Patient Details > MDM HSC Cancer Patient Pathway System [Logout](#)

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Open (Mr) 5370 51413 Hospital Number: Gender: Male HCN: Edit

GP:	Clinician:	Oncologist:	Surgeon:		T: T2 N: N1 M: M0
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**Initial Assessment:**

**Diagnosis:** Primary cancer in lung(pathologically verified) ▼

**Histology:** Adenocarcinoma, NOS, (M81403)

**Clinical Summary:** Lobectomy June 2008 followed by adjuvant chemotherapy.

**CT Findings:** 20/02/2008 Enhanced CT shows 3cm mass right frontal region with mass effect also multiple lesions left parietal area. Appearances consistent with metastases fro lung primary

**MDM Care Plan**

**Operability:** Surgically Inoperable ▼

**Treatment Intent:** Palliative ▼ Radiotherapy ▼

**Reason Not Curative:** Convincing evidence of distant metastases

02-03-2009 24-03-2009

**Date:** 24-03-2009

**Location:** Belfast City

**Imaging For Viewing**

CT  PET  Path  MRI

**Reason for Discussion:** None ▼

**MDM Update:** Lobectomy June 2008 followed by adjuvant chemotherapy. Now presenting with cerebral mets

**MDM Action:** Has commenced palliative XRT. Specialist Palliative referral has been made

**Referral and Further Details**

**Select Letters to Generate**

Oncology Referral

Special Palliative Care

**Name** **Date**

SpecialPalliativeReferral-24-03-2009 17-3-09 [View](#)

GP Letter

## CaPPS: Treatment screen

Home > Patient Details **HSC** Cancer Patient Pathway System [Logout](#) [eranaghan](#) [Password](#) [Add Patient](#) [Schedule MDM](#) [Tr](#)

Open **(Mr) [E:0] [S:1]** *Hospital Number:* *Gender:* *HCN:* [E](#)

<i>GP:</i>	<i>Clinician:</i>	<i>Oncologist:</i>	<i>Surgeon:</i>		<b>T: T2 N: N1 M: M0</b>
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  - CLinNS/AHP [0]
  - Diary [0]
  - Adjustments [0]
  - Close
  - Followup [0]

	Date of Treatment	Procedure Summary	Treatment	Therapy Type	Drug Regimen
Edit Delete	02-04-2008	Lobectomy of lung (E54.3)	Surgery	N/A	N/A
Edit Delete	01-06-2008		Anti-cancer drug regimen/Chemotherapy	Chemotherapy	CARBO / ETOP

## CaPPS: Clinical Nurse Specialist/AHP

Home > Patient Details **HSC** Cancer Patient Pathway System [Logout](#) [eranaghan](#) [Password](#) [Add Patient](#) [Schedule MDM](#) [Tr](#)

Open **(Mr) [E:0] [S:1]** *Hospital Number:* *Gender:* *HCN:* [E](#)

<i>GP:</i>	<i>Clinician:</i>	<i>Oncologist:</i>	<i>Surgeon:</i>		<b>T: T2 N: N1 M: M0</b>
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- Lung(Suspect)10-1-2008
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    - 02-3-2009
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  - Treatment [0]
  - CLinNS/AHP [0]
  - Diary [0]
  - Adjustments [0]
  - Close
  - Followup [0]

	Entry Date	Entered By	Entry Details
Edit	12-6-2008	eranaghan	Patient attended with wife today-started chemo last week-minimal side effects but anxious+-. Discussed relaxation techniques today-Will reassess at clinic next week.



# CaPPS: Follow up screen

Home > Patient Details > Followup **HSC Cancer Patient Pathway System** Logout eranaghan Password Add Patient Schedule MDM Tr

Open 13 (1) 3 (11) Hospital Number: Born: Gender: HCN:

GP:	Clinician:	Oncologist:	Surgeon:	Palliative:	Contact Details:
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- Lung(Suspect)10-1-2008
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  - Referrals [1]
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    - 02-3-2009
    - 24-3-2009
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  - Treatment [3]
  - CLiNS/AHP [1]
  - Diary [0]
  - Adjustments [0]
  - Close
  - Followup [4]

Date of Followup	Summary
10-05-2008	Attended clinic today-Right upper Lobectomy April-good post op recovery. Path confirms T2N1 disease. Has been referred to oncology
15-06-2008	Discussed adjuvant chemotherapy option- patient-wishes to consider this. Review 2 weeks. Seen by oncology nurse-chemo leaflets given
12-09-2008	Post chemo now. Feeling well energy levels returning. Repeat CT in 3mths
10-02-2009	Admitted with headache & vomiting-has been unwell for several weeks now. CT shows mets. discuss @ MDM

New