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NSW  HEALTH

RiMS - Managing Outpatient Waiting Lists

Presented by

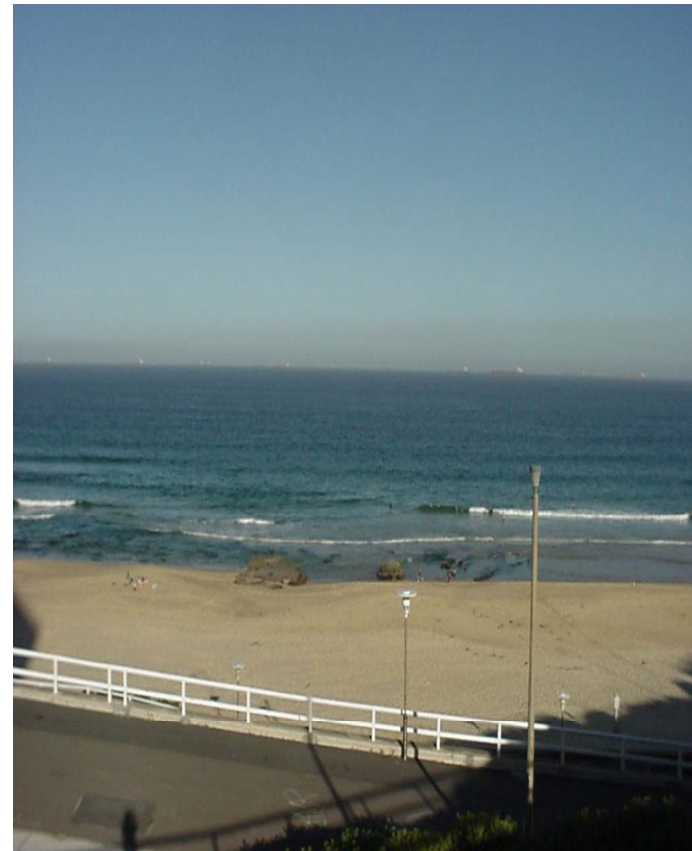
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Ambulatory Care, Royal Newcastle Centre

Linda Leary, Clerical Manager,
Royal Newcastle Centre

16th September 2009

RIMS – Managing Outpatient Waiting Lists

- In the beginning..... The ‘Royal’ and the view



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~~RiMS – Managing Outpatient Waiting Lists~~

History of the 'Royal', the RNC & RiMS

- Royal Newcastle Hospital 1817 – 2006
 - Commenced as a convict hospital in 1817
 - Provided Tertiary Hospital services for the Hunter Region until severely damaged by a major earthquake in 1989
- 1991 John Hunter Hospital commissioned and the majority of acute services moved from RNH to JHH
- 2001 – Hunter Strategy initiated - ACCESS Project
- Outpatient services provided at RNH & JHH campuses until 2006

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- **2006 - Royal Newcastle Centre**
 - 84 In-patient beds for elective surgery
 - 5 Operating Theatres, Interventional, Rehab. & diagnostic services
 - **Ambulatory Care Centre combining RNH and JHH outpatient clinics**



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RIMS – Managing Outpatient Waiting Lists

- Ambulatory Care Centre – Outpatient Services
 - A ‘Marriage of convenience’
 - Several reviews undertaken to improve OP services prior to and after opening the ACC
 - Strong clinician resistance to integration and change – and in particular to the.....

Referral Management Centre

- Consolidation of administrative functions
- Combined Call-centre & Referral Management
- Multiple clinicians, multiple rules, limited resources
- Referrals received from GPs, ED and internal stakeholders.

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Profile of the Ambulatory Care Centre

- 760 sessions per week – medical, surgical, paed.
- Average 500 patients per day
 - 2006 – 2007 106,200 attendances
 - 2007 – 2008 116,500 attendances
 - 2008 – 2009 114,000 attendances
- 45+ different specialties
- 250+ different clinicians
- 84 Consulting / Procedure / Interview Rooms
- A lot of history
- A blend of cultures



RIMS – Managing Outpatient Waiting Lists

It's all about PATIENTS

- Referrals represent patients
- Referrals are the link between the primary carer (GP) and specialist services
- The quality of a referral determines how the patient is evaluated.
- Once received, the referral (patient) has to be managed and something done about their problem.
- Demand for services usually exceeds supply.

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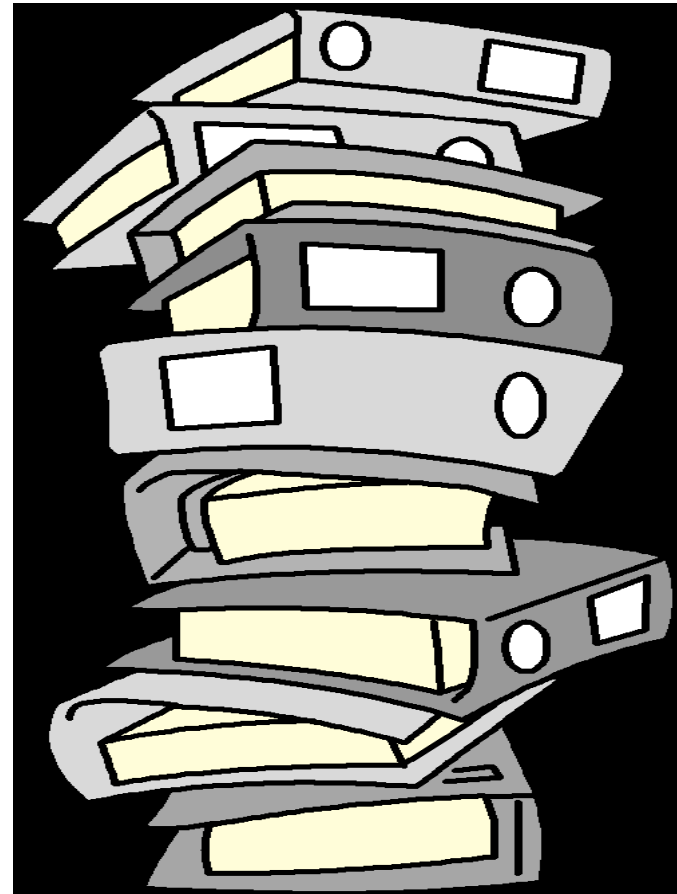
RiMS – Managing Outpatient Waiting Lists

The Problem - why we developed RiMS?

- Average 150 documents received per day for any one of 45+ specialties, and increasing
- Referrals variable in quality, from 1 – 15+ pages
- All referrals printed, collated, manually recorded in the Referral Management Centre
- Referrals dispatched from RMC to multiple locations – resulting in multiple handling, lost documents, delay in patient care.
- Inability to track & often trace the referral, to monitor its progress and inform patients and referrers of appointment status.
- Slow triage turn-around time; angry patients, GPs and specialists
- Time wasted searching for ‘lost’ documents in multiple places
- Much blaming and complaining

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The effect: - A lot of stress & mountains of paper !!



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The Solution - RiMS

The screenshot shows the 'Incoming Fax' screen in the RiMS system. At the top, there are navigation tabs: 'Incoming Fax', 'Waiting List', 'Specialty Triage', 'Finalise', 'Inquiry', 'Maintenance', and 'Reports'. The user is logged in as 'Janet Burns'. The main area is titled 'Fax Documents Waiting' and shows a table of incoming faxes. The table has columns for Document, Received DTIM, Status, Specialty, Patient Name, and MRN. Below the table is a 'Comment' section with a 'Manual Utilities' button and a 'Save Comment' button. Red arrows point from various labels below to specific UI elements: 'Document comment' points to the comment text area; 'Patient search text boxes' points to the MRN, Surname, and Firstname input fields; 'Status combo box' points to the 'Status' column dropdown in the table; 'Specialty combo box' points to the 'Specialty' column dropdown; 'Patient name filter' points to the 'Filter patient:' input field; 'Patient assigned' points to the 'Patient Name' column; and 'Pick up fax from server' points to the 'Get Faxes' button.

Document	Received DTIM	Status	Specialty	Patient Name	MRN
62966336_62966454_62966527.pdf	01/04/2009 16:30:25	NEW		WATT LA DONNA	
62965857_62966446.pdf	01/05/2009 09:41:37	NEW		WANT SHIKYIA	
62966211.pdf	02/03/2009 09:04:00	INCOMPLETE		FORTUNASO GIUSEPPINA	
62966223.pdf	02/03/2009 09:56:00	NEW			
62966224.pdf	02/03/2009 10:02:00	RMC_COMPLETE	EYE	ERVIN MICHAEL	3057291
62966228.pdf	02/03/2009 10:17:00	NEW			
62966253.pdf	02/03/2009 11:44:00	INCOMPLETE			
62966261.pdf	02/03/2009 12:31:00	NEW			
62966263.pdf	02/03/2009 12:36:00	INCOMPLETE			
62966264.pdf	02/03/2009 12:46:00	NEW			
62966265.pdf	02/03/2009 12:46:00	NEW			
62966266.pdf	02/03/2009 12:46:00	NEW			
62966268.pdf	02/03/2009 12:58:00	NEW			
62966269.pdf	02/03/2009 13:07:00	NEW			

Figure 13: Incoming Fax Screen

Document comment

Patient search text boxes

Status combo box

Specialty combo box

No patient assigned

Document datagrid

Patient name filter

Patient assigned

Pick up fax from server

RiMS – Managing Outpatient Waiting Lists

- What is RiMS

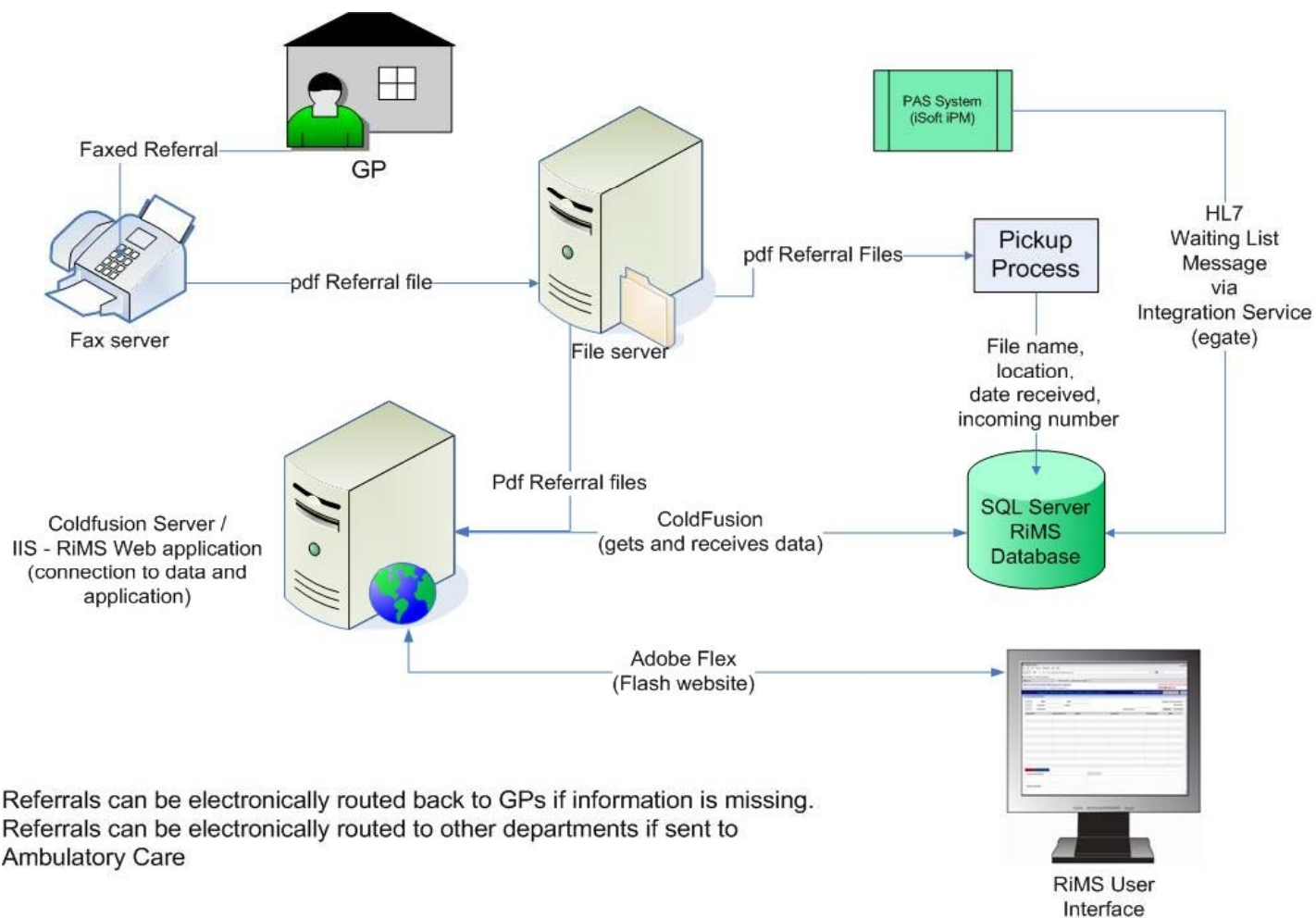
- RiMS is a new, original workflow tool developed completely in-house by administrative, nursing & IT personnel
- RiMS interfaces with iPM to manage patient access via electronic referral to specialist outpatient services
- RiMS eliminates manual processes, improves triage time and ensures transparency & accountability.
- RiMS captures, stores, tracks & displays patient information from referrer to specialist.



RiMS – Managing Outpatient Waiting Lists

- RiMS provides a messaging interface between GPs and the RMC to ensure timely referral processing.
- Using RiMS all referrals for outpatient appointments are wait listed according to clinical priority.
- RiMS can be applied to any clinical scenario that requires internal/external document interface, storage & transfer of information in it's original format, exchange of and commentary on information – e.g In-patient waiting list RFA.

RiMS in action



Referrals can be electronically routed back to GPs if information is missing.
 Referrals can be electronically routed to other departments if sent to Ambulatory Care

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RiMS – Managing Outpatient Waiting Lists

RiMS functionality – behind the scenes

- Faxes are received on the RMC number and written to a directory as a .pdf file and a text file.
- The file contains the fax details, number of pages, & time received.
- A pick-up process collects the .pdf & text file and moves them to the RMC database (SQL server).
- The operator opens the file, looks in iPM, and matches the referral to a patient MRN (or creates one).
- The referral details are entered into the iPM Wait List
- An HL7 waiting list message is sent via the Integration Service to the SQL server containing the RiMS database.
- Using Coldfusion technology the RiMS web application links the iPM data to the RiMS database referral information and the operator then activates the onwards journey of the referral to triage or elsewhere.

RiMS – Incoming Fax view

Number of Documents: 2212
New today: 0

Document	Received DTIM	Status	Specialty	Patient Name	MRN
62966336_62966454_62966527.pdf	01/04/2009 16:30:25	NEW		WATT LA DONNA	
629665857_62966446.pdf	01/05/2009 09:41:37	NEW		WANT SHIKYIA	
62966211.pdf	02/03/2009 09:04:00	DELETED		FORTUNASO GIUSEPPINA	
62966223.pdf	02/03/2009 09:56:00	EXTERNAL		ERVIN MICHAEL	3057291
62966224.pdf	02/03/2009 10:02:00	FORWARDED			
62966228.pdf	02/03/2009 10:17:00	INCOMPLETE			
62966253.pdf	02/03/2009 11:44:00	NEW			
62966261.pdf	02/03/2009 12:31:00	OTHER			
62966263.pdf	02/03/2009 12:36:00	RETURNED - INCOMPLETE			
62966264.pdf	02/03/2009 12:46:00	RMC_COMPLETE			
62966265.pdf	02/03/2009 12:46:00				
62966266.pdf	02/03/2009 12:46:00				
62966268.pdf	02/03/2009 12:58:00				
62966269.pdf	02/03/2009 13:07:00				

Comment Manual Utilities

Previous Comments

Merge of documents 62966336.pdf, 62966454.pdf, 62966527.pdf by LLeary

Save Comment

Figure 13: Incoming Fax Screen

Document comment

Patient search text boxes

Status combo box

Document datagrid

Patient name filter

No patient assigned

Pick up fax from server

RiMS – Managing Outpatient Waiting Lists

- RiMS searches iPM database & matches referral

Referral information Management System
Referral Management Centre - Outpatient Department

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Incoming Fax | **Waiting List** | Speciality Triage | Finalise | Inquiry | Maintenance | Reports

You are logged in as Janet Burns [Change Password](#) [Logout](#)

Match Waiting List to Referral

Filter [Clear](#) [Refresh](#)

Patient	MRN	Gender	Date of Birth	Speciality	Document?
ARTHUR VIVIANNE	0260937	FEMALE	01/10/1924	RESPIRATORY	<input checked="" type="checkbox"/>
BALL GARY	0171055	MALE	17/04/1949	RESPIRATORY	<input type="checkbox"/>
BANKS GORDON	2522212	MALE	30/04/1971	NEUROSURGERY	<input checked="" type="checkbox"/>
BANKS GORDON	2522212	MALE	30/04/1971	NEUROSURGERY	<input checked="" type="checkbox"/>
BASSETT ANTHONY	0957802	MALE	01/08/1980	IMMUNOLOGY/INFECT	<input checked="" type="checkbox"/>
BORG MARIAN	0521480	FEMALE	21/12/1952	ORTHOPAEDICS	<input checked="" type="checkbox"/>
BUCKLEY JOHANNE	1670950	FEMALE	01/03/1947	ORTHOPAEDICS	<input checked="" type="checkbox"/>
CALLAGHAN MABEL	0393135	FEMALE	23/02/1925	ORTHOPAEDICS	<input checked="" type="checkbox"/>
CANT GARRY	0304555	MALE	25/01/1953	GENERAL SURGERY	<input type="checkbox"/>
CASINI TONY	0743104	MALE	05/10/1965	DERMATOLOGY	<input checked="" type="checkbox"/>
CHALCRAFT DENISE	0723089	FEMALE	02/12/1962	ORTHOPAEDICS	<input checked="" type="checkbox"/>
CHAN SEAN	0839413	MALE	19/03/1977	DERMATOLOGY	<input checked="" type="checkbox"/>
CICIC MIROSLAVA	0883738	FEMALE	06/04/1949	GASTROENTEROLOGY	<input checked="" type="checkbox"/>

Waiting Referral Documents for RMC [Auto-Match](#)

Document	Received Date	Patient	MRN	Speciality
62966208.pdf	02/03/2009 08:48:			
62966209.pdf	02/03/2009 08:50:			
62966211.pdf	02/03/2009 09:04:			
62966212.pdf	02/03/2009 09:16:			
62966213.pdf	02/03/2009 09:17:			
62966214.pdf	02/03/2009 09:25:			
62966215.pdf	02/03/2009 09:31:			
62966216.pdf	02/03/2009 09:34:			
62966217.pdf	02/03/2009 09:34:			
62966218.pdf	02/03/2009 09:37:			
62966220.pdf	02/03/2009 09:40:			
62966221.pdf	02/03/2009 09:53:			
62966222.pdf	02/03/2009 09:55:			

Drag a document from this list into a matching WaitingList entry in the WaitingList grid

Figure 27: Waiting list screen

Waiting list grid

Finalise Checkbox

Document grid

Auto-Match

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- Screen Views available to Clinical personnel

Referral information Management System
Referral Management Centre - Outpatient Department

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You are logged in as Janet Burns [Change Password](#) [Logout](#)

Specialty Triage | Inquiry

Triage

Filters: Select a specialty ▼ Select a clinician ▼ [Clear Filter](#) [Refresh](#) Number waiting triage 25

Patient	HRN	DOB	Gender	Referral	Received	Priority	Specialty	Clinician	Triaged
STEVENS ROBERT	0932317	10/04/1944	MALE	62965761.pdf	24/02/2009 09:23:00	B-Within 90 days ▼	ORTHOPAEDICS		<input checked="" type="checkbox"/>
BUCKLEY JOHANNE	1676058	01/03/1947	FEMALE	62965764.pdf	24/02/2009 09:40:00	Not Specified ▼	ORTHOPAEDICS		<input type="checkbox"/>

Figure 11: Specialty Triage and Inquiry screens available in Triage Access

Referral information Management System
Referral Management Centre - Outpatient Department

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You are logged in as test View [Change Password](#) [Logout](#)

Inquiry

Referral Maintenance and Inquiry

[Clear](#) Search Surname: Specialty: Filter on specialty... ▼ Start Date: End Date:

First name:

HRN Search:

Received WList Document Triaged Finalised

[Waitlist View](#) [Document View](#) Filtered on NO FILTER - 76 Records

Patient	HRN	DOB	Gender	Specialty	Clinician	Priority	Received Date	Date On WList	Doc Assigned	Triage Date	Triaged By	Finalise Date
ARTHUR VIVIANNE	0265937	01/10/1924	FEMALE	RESPIRATORY	Saltos, Nick	Not Specified		24/02/2009 00:	03/03/2009 14:			
BALL GARY	0171055	17/04/1949	MALE	RESPIRATORY	Wark, Peter	Not Specified		24/02/2009 00:				

Figure 12: Only the Inquiry screen is available in View Only

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- Pop-up correspondence to GP (referrer)
 - RiMS operator electronically ticks the box and inserts comments to advise referrer what additional information is required.
 - The GP fax number is entered and the RiMS document with fax coversheet is returned to the GP.
 - Other documents can be attached e.g. specialist list.

Return Fax Details

Return to: Wendy Pudney

Because: Manual Fax Number: 12345

It is illegible and we are unable to triage it
 We have been unable to contact the patient using the contact details provided
 The specialist you have nominated does not conduct outpatient clinics at the RNC

It does not include the patient's

First name
 Last name
 Mailing address
 Date of Birth
 Contact telephone number (preferably home and mobile)
 Test results referred to in the correspondence

It requires the following additional information

Reason for referral (provisional diagnosis)
 Specialty requested
 Name of specialist requested
 Referrer's first and last names
 Referrer's mailing address for correspondence
 Referrer's contact telephone and facsimile number
 Referrer's signature
 Referrer's provider number

Comments

Include original fax
 Include specialist list

Sent to Wendy Pudney

Send Cancel

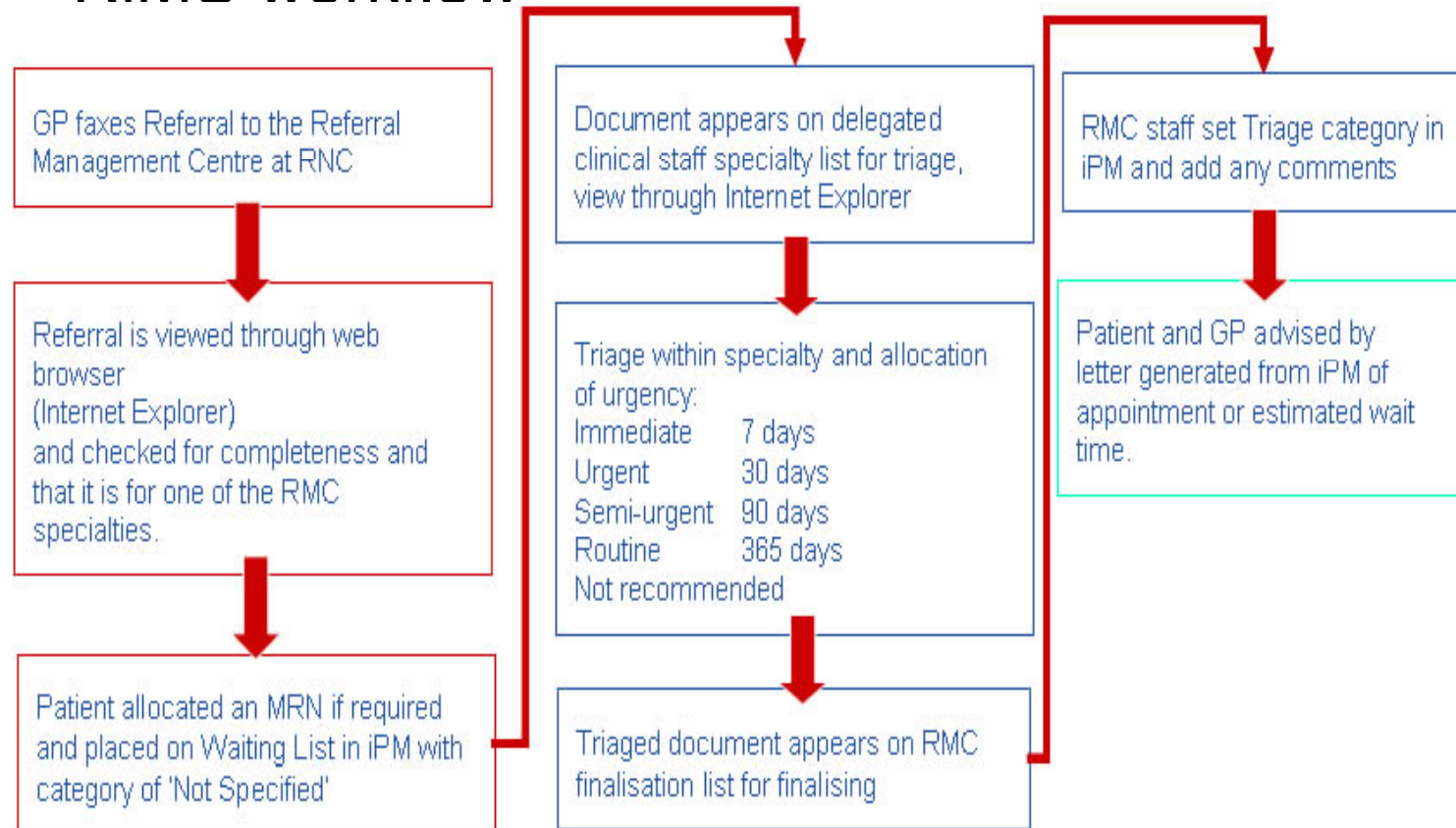
- Tick the **Manual** checkbox to enter a fax number.

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RiMS – Managing Outpatient Waiting Lists

■ RiMS workflow





RiMS – Managing Outpatient Waiting Lists

RiMS Key Performance Indicators

- No loss of referrals
- All referrals able to be triaged - Improved referral information
- Reduced queue time
- Reduced triage time
- Max. 5 day response time
- All referrals acknowledged
- All appointments wait listed and auditable
- Able to be used by all OPD services

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RiMS – Managing Outpatient Waiting Lists

Outcomes of RiMS development

- Paper referrals & manual handling eliminated
- ALL referrals electronically received, stored, tracked and remotely triaged –security of patient information.
- More than 75% of patient referrals are triaged and the outcome reported back to the referring clinician and patient within 5 days
- Any referral can be retrieved from any PC on the network or remotely.
- Enhanced communication between internal and external stakeholders resulting in improved quality of referrals & timely care.
- Triage & telephone queue times reduced by 30%
- Ensures transparency and accountability for processing all referrals
- Clinician engagement and confidence in ‘the system’
- Replaces a complex, inefficient, unreliable process
- Significant reduction in complaints
- Saves 10+ reams of paper per week
- Nominated for a Quality Award

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Before RiMS



After RiMS



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Thank you all - ? Questions



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