

ROTHERHAM HEALTH RECORD

ROTHERHAM

INTRODUCTION

The Rotherham Health Record (RHR) is an integrated IT portal which presents the information health and care workers need to make clinical and operational decisions with confidence.

It provides aggregated views of key data at the patient level, and features a set of dashboards which show how the local healthcare system is performing.

The RHR is a bespoke solution developed by The Rotherham NHS Foundation Trust. It is managed by the Rotherham Health and Care Interoperability Group.

AT A GLANCE

SCALE

M

S = < 5 organisations
M = 5-10 organisations
L = 10+ organisations

MATURITY

3

0 – No planned programme for sharing data
1 – Sharing one data type or planning data sharing
2 – Sharing two data types (inc. GP) at read only
3 – Sharing three or more data types at read only
4 – Sharing three or more data types, with write capability

*for the purpose of comparison the data types are GP, Acute, Community, Mental Health, Adult Social Care, Child Social Care

HOW THE ROTHERHAM HEALTH RECORD IS BEING USED

Individual Patient Care

CURRENT

Care Planning & Coordination

CURRENT

Health & Care System Management

CURRENT



The important thing to realise about the RHR is that it presents clinical, operational and analytical data in a single place. That's what makes it so powerful.



TIMELINE

2014

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Secondary care EPR is developed in-house (known as SEPIA); this later becomes the foundation for the RHR

2015

GPs request access to SEPIA. Community teams come on board in November. The RHR gains momentum

2016

HSJ award for "Enhancing care by sharing data and information" is received

Plan for 2018+

Expand no. of users in primary care, social care and mental health

13,000 hits per week

Approx. 3,500 users

Approx. 260,000 population

LOCAL CONTEXT

- The Rotherham Health Record is an integrated web-based portal
- The RHR consists of information pulled from a variety of underlying clinical systems, which is linked together and presented in a useful way according to who is accessing it
- The RHR has evolved “organically” based on demand from clinicians. It began with the in-house development of SEPIA (originally designed as TRFT’s bespoke EPR) and HIPPO (a similar web-based solution for GPs). These two portals have converged and the resulting solution is the RHR
- The RHR presents data at both the patient level (i.e. an aggregated summary of key data for an individual patient) and a management level in the form of a set of real time dashboards
- It can be accessed on mobile devices such as smartphones, tablets and laptops

THE ROTHERHAM HEALTH RECORD SUPPORTS...

INDIVIDUAL PATIENT CARE

- The RHR provides an aggregated view of the following information at the patient level, offering care givers a more complete picture of who is inputting into the their patients’ care, what they have done and what is planned:
 - Summary, inc. Current Problems, Medication, Allergies & Recent Tests
 - Problem view / Diagnosis view
 - Risks and Warnings
 - Procedures, Investigations
 - Live ambulance en-route
 - Community caseload and lead
 - Examination (Blood Pressure Only)
 - Events consisting of Encounters, Admissions & Referrals
 - Theatres, Path., Radiology, Maternity
- From RMBC Social Care records:
- Social Care services in place
 - Case Allocated
 - Allocated to Worker/Team
 - No. Safeguarding Contacts

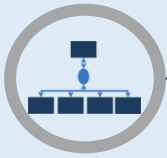
CARE PLANNING & COORDINATION OF CARE

- The RHR enables colleagues from across Rotherham to work together effectively.
- For example, community nurses use the RHR to see when their patients have been admitted to hospital or are attending A&E. They can do so within the patient record view (which can be launched in context from SystemOne) or they can proactively identify patients on their caseload who have been admitted using the Community View, which shows lists of inpatients by GP. Having this information means they avoid visits to patients who are not at home, and most importantly are able to offer support to the wards where their patients are based.
- The Transfers of Care View allows community and social care workers to see which patients are pending transfer or discharge and to assist in removing any blockers.

HEALTH AND CARE SYSTEM MANAGEMENT

- The RHR allows care givers to identify potential issues and take action to prevent them escalating. It empowers individuals and teams to make decisions which have a positive impact on the health & care system as a whole. It does so through a set of dashboards which display aggregated data in an accessible, visual format, e.g.:
 - Urgent & Emergency Care (ambulances, A&E, unscheduled care status)
 - Care Home (bed availability)
 - Transfers of Care (inc. reasons for delay)
 - Radiology (requests/ priority)
 - Theatres (clinician activity, capacity)
- Users can drill down into the detailed patient view from the dashboard views.

TECHNICAL SOLUTION



CENTRAL-REPOSITORY ARCHITECTURE

(with federated record locator features)

SOLUTION FEATURES

FEATURE	IN USE
Coded data	✓
Free text data	✓
Bi-directional	✓
Real time	✓
Role-based access	✓
Mobile	✓
Write access	⊘
Notifications	⊘
Alerts	⊘
Patient Portal	✓

- The RHR is a secure web-based portal designed by an in-house development team at TRFT
- The development roadmap is steered by the Clinical Health Informatics Development Group, which consists of clinicians and IT experts
- Agile and responsive design methods are followed
- Data displayed in the RHR is available in real-time and is read-only
- The RHR can be launched in patient context from underlying systems, e.g. SystemOne, using open APIs
- It is fully auditable

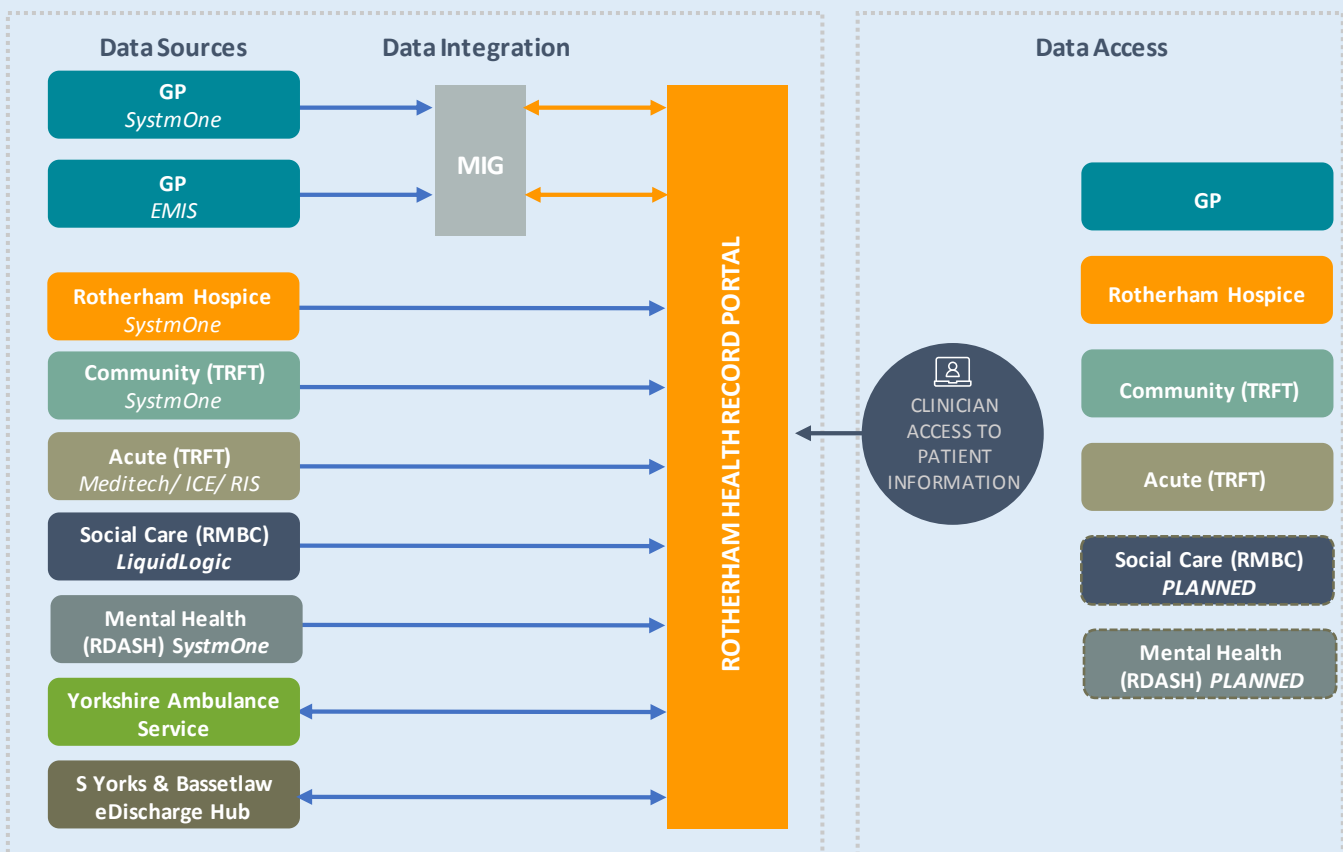
KEY SYSTEMS IN SCOPE

SITE	TYPE	VIEW	SHARE	IT SYSTEM
The Rotherham NHS Foundation Trust	Acute	Yes	Yes	Meditech
The Rotherham NHS Foundation Trust	Comm	Yes	Yes	S1
Urgent & Emergency Care Centre (TRFT)	Urgent	Yes	Yes	Meditech/S1
R'ham Doncaster & South Humber NHS FT	MH	Planned	Yes	S1
31 GP Practices	GP	Yes	Yes	EMIS/S1
R'ham Metropolitan Borough Council	LA	Planned	Yes	LiquidLogic
Yorkshire Ambulance Service	Amb	-	Yes	ECS
Rotherham Hospice	Pall	Yes	Yes	SystemOne
South Yorks & Bassetlaw eDischarge Hub	Hub	-	Yes	-

OPEN STANDARDS

STATUS	SNOMED	Read	dm+d	HTML	ITK	HL7	HL7 FHIR
IN USE	✓	✓	✓	✓	✓	✓	
NOT IN USE							
PLANNED							✓

HIGH LEVEL TECHNICAL ARCHITECTURE



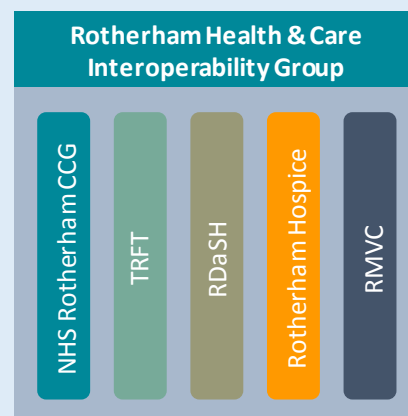
IMPLEMENTATION

The RHR Programme is managed through Rotherham's Local Digital Roadmap (LDR), which was developed in 2016. The Rotherham Health and Care Interoperability Group prioritises, agrees and signs off on Roadmap activities.

Resources have been provided to support the delivery of the RHR by Rotherham CCG and the Better Care Fund, to supplement the core team based at The Rotherham NHS Foundation Trust.

GOVERNANCE

The Rotherham Health and Care Interoperability Group comprises representatives from The Rotherham NHS Foundation Trust, Rotherham Doncaster and South Humber NHS Foundation Trust, Rotherham Metropolitan Borough Council, Rotherham Hospice, and Rotherham CCG. The group was established to provide a governance structure for the development and delivery of the LDR, a key component of which is the RHR.



CONSENT

An implied consent model is implemented for direct care only. A Privacy Impact Assessment was developed collaboratively by the Information Governance Leads across Rotherham. It concluded that there is a justifiable legal basis for the RHR. A patient-facing information campaign is due to launch, which will inform patients of their right to opt out. Opt-outs are recorded within the RHR and a database table will hold patient identifiers where an opt-out request has been received.



COMMUNICATIONS

A Communications and Engagement plan has been developed detailing how Rotherham health and social care services will promote the RHR and listen to patients' views.

Communications and Engagement leads across the partnership will work closely together to ensure that clear messages and innovative marketing materials are implemented through a variety of channels. The aim is to increase awareness of the RHR, and ensure patients, family and carers understand its benefits, as well as how to opt out.

KNOWLEDGE SHARING

- Having built a bespoke solution, the RHR team is not part of a wider user community centred on a particular system or vendor. They do, however, seek out opportunities to share knowledge and learn from others, for example:
 - Representatives from TRFT and Rotherham CCG are active members of the local integrated care workstream
 - The Yorkshire & Humberside NHS Directors of Informatics Forum provides a means of sharing current thinking, ideas, and best practice
 - They have made visits to more mature shared care records sites

BENEFITS

Due to the way in which the RHR programme has evolved, it has not followed a traditional benefits management approach, therefore any benefits captured are typically derived from anecdotal evidence. The anecdotes are many, however, and the fact that the RHR has quickly embedded itself as an indispensable tool for the people who use it is testament to the positive impact it has had.

Moving forward, the potential for benefits monitoring using the RHR is clearly understood. For example, the Community Nursing team is planning to demonstrate improvements in response times for their service using data in the shared record. They will use it to understand existing practices and identify areas for change, then baseline the current ways of working and quantify the benefits.

PRIMARY CARE



My care is now much more joined up. If I get admitted to hospital, the nurses caring for me in the community know this and can offer to support me on the ward, coordinating different aspects of my care and ensuring that I have what I need when I go home. I spend less time waiting to leave hospital because the right people are having the right conversations about what needs to happen to ensure I am ready to go home.

COMMUNITY NURSE



I have to make fewer phone calls and spend less time chasing around for information. I make fewer wasted journeys. If I'm going out to visit a patient, my first port of call is the RHR to check that they haven't been admitted to hospital. If they have, I can see which ward they are on and I can offer to provide support. In the past I could have spent half a day trying to get hold of the information I now have at the click of a button.

The RHR gives me confidence. It enables me to suggest positive changes to the way we work. I can refer to the RHR for evidence to support my ideas.

FOCUS ON: USE OF SHARED RECORDS TO SUPPORT SERVICE REDESIGN

Joanne Mangnall, Deputy Head of Nursing for Community at TRFT:

“The RHR is absolutely essential. Not only because it supports our everyday interactions with patients, but also due to the influence it has on the way we design and deliver care. I am currently working with the community nursing team to look at A&E attendances from care homes. We want to know what happened in the run up to the attendance. Knowing this information will help us determine how we can keep patients in the home more often. We are auditing shared records to piece together the timeline. What was done and when? Time of day is crucial in terms of understanding the resources and support services available and what package we need to provide to support care homes better.”

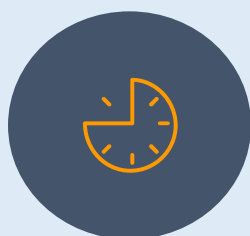
SUCCESS FACTORS



CLINICAL ENGAGEMENT

GENERATE BUY-IN BY INVOLVING CLINICIANS FROM THE START

- The value of an engaged clinical user base should not be underestimated.
- Once the Community teams joined the RHR in 2015, it was a major catalyst in driving the programme forward because the community users wanted to use shared information to support all aspects of their clinical work.
- The RHR team gets clinicians involved in the design process, which ensures information is shared in a meaningful way.
- Developing proper clinical usage of the underlying clinical systems was also a major component of developing the shared record as a valuable resource. If the shared information is of clinical significance, people will want to access it and will be encouraged to contribute their own information in turn.



EFFICIENCY

DON'T REINVENT THE WHEEL

- The RHR team didn't create new data sets unnecessarily; they used what they already had
- This saved time and allowed people to focus on higher value activities
- However, they did realise that clinical language and definitions varied between organisations and care givers so this needed to be resolved as part of the design process

FUTURE AMBITIONS

As part of the future development of the RHR, there are specific milestones and plans to:

- Expand the number of users in primary care, mental health and social care
- Build patient access capabilities, focusing on patients on particular care pathways, e.g. diabetes, stroke, cancer, obstetrics
- Create more tailored views of information for specific pathways
- Extend the document sharing capability to include more partners' information
- Implement subscription-based text messaging alerts for staff triggered by patients being admitted or attending
- Build a FHIR interface to the shared record

LESSONS LEARNED

INFORMATION GOVERNANCE

Challenge: Getting to the point of having an information sharing agreement which all partner organisations will sign up to can be time consuming and make demands on already stretched resources

Lessons Learned: Start Information Governance (IG) processes early and don't underestimate the amount of work involved. Not having these processes in place can cause delays, not least because IG can begin to be used as a barrier to change rather than an enabler. Ensure an effective, active governance structure is in place with all partner organisations represented.

JUST DO IT

Challenge: If you don't start to give people a means of sharing information, they will come up with their own methods, systems and work arounds, which may or may not align with the main aims and principles of the shared care record.

Lessons Learned: Something is better than nothing! You can't always plan and aim for perfection, and you can over-think things. If you make some information available, based on what exists already as a starting point, it will generate demand for more and the shared record will grow from there. In all likelihood, it will be used in innovative ways that were never considered at the outset. This in turn drives clinical engagement.

UX DESIGN APPROACH

Challenge: The focus initially was on the clinical experience but the team realised that they needed to consider how the tools they were developing could be used by all health and care users, including operational management, to make them effective.

Lessons Learned: It's important to clearly define your target user base and understand how they will benefit from using the shared care record. Keep those users at the centre of any design decisions. Rotherham employ a UX (i.e. a user centred) design approach which puts the experience of the end user at the heart of what they do.

FURTHER INFORMATION

CONTACT

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INFORMATION CORRECT AS OF 27/04/2018

LINKS

Rotherham Local Digital Roadmap

RMBC Digital Council Strategy 2016-19

RHR Information Sharing Agreement

Rotherham Health Record