Avon and Wiltshire NHS
Mental Health Partnership NHS Trust

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Summary Report – Trust Board Meeting (Part 1)	**Date: 31 October 2012**
Report Title: Electronic Patient Records System Update	
Agenda Item; 10	**Enclosures:** **Appendix 1: Clinical Systems in use at AWP** **Appendix : Clinical Systems Management Group ToR**
Sponsor: NCAS Director	**Presenter: NCAS Director**
Report Author: Alan Metherall – Deputy Director of Nursing, Mark Francis – RIO Clinical Systems Manager	
Report discussed previously at:	**Clinical Systems Management Group**

Purpose of the Report and Action required		
To update the Board on the use of RIO as the Electronic Health Care record, progress made and ongoing activity.	Approval	
	Discussion	
	Information	X

Executive Summary of Key Issues

The Executive Lead for the oversight of the Electronic Heathcare Record sits with the Nursing Directorate. Establishment of the Clinical Systems Management Group has brought together the operational work streams associated with RIO and other clinical systems. The CSMG makes decisions within the framework of it's Terms of Reference on operational issues associated with the management of RIO and other systems. Recent focus has been on the interface issues between the requirements of PbR, the implementation of RIO 1.1, and the quality of Care Planning as reflected in the recent CQC inspection of Adult Community services.

Electronic Patient Records System Update

Which Strategic Objective does this paper address	
A sustainable value for money business	Y
Excellent service user access and experience	Y
Excellent partnership working with other organisations	
Effective engagement and improvement in staff satisfaction	Y

Link to Fit for the Future Implementation Plan	
Specify objective number	To support the development of RIO as a more clinically intuitive tool.

Corporate Impact Assessment	
Quality and Safety implications	Poor Care Planning is identified as a factor in recent homicide reports, and in the CQC Inspection Report of Adult Community services.
Corporate Risk Register	none
FGEB (Trust ALE replacement)	none
IG Toolkit	none
Equality Impact Analysis	none

Recommendations to other committees
Finance and Planning Committee has an interest in the implications of PbR progress.

Recommendation/Decision
The Board is recommended to **note** the report

Electronic Patient Records System Update

1. Introduction

1.1. This report will describe the significant role RiO has in the delivery of safe care to service users. The report will describe current operational issues and outline areas of future development that will need clarification and integration. These issues are described through the experiences of service users and staff.

2. Background

2.1. What is RiO?

2.1.1. RiO is an electronic integrated clinical information system. In this context, 'integrated' refers to the ability to collect clinical information as well as the administrative information most Trusts have become accustomed to collecting electronically. The result is a system designed with the goal of providing a clinical record available at any time or place the network on which it is based can be accessed. The system is also required to meet the needs of the organisation for performance information.

2.2. BT and national structure

2.2.1. The National Programme for IT was set up in 2002 and was designed to reform the way the NHS in England uses information, and hence to improve services and quality of Patient Care. The Programme is managed at national level by NHS Connecting for Health, part of the Department of Health. BT became the service provider in 2008 to Trusts across the South West. AWP alongside Trusts in the South West AWP subsequently adopted RiO, the Mental Health and Community system as configured by the London Cluster.

2.2.2. The present contract runs until 2015 when AWP will be free to negotiate its own arrangements for provision of information systems.

3. Present Situation

3.1. Implementation

3.1.1. RiO was successfully fully implemented as an IT project in June 2011. Due to the clinical significance of the system, it was inappropriate that this remained an IT-managed system. In spring 2012 the responsibility for the RiO system was transferred to NCAS

3.1.2. Hazel Watson, Director of Nursing Compliance, Assurance and Standards and Caldicott Guardian became the Information Asset Owner (IAO). The post of Clinical Systems Manager was created and recruited to in June 2012. This post took the role of Information Asset Administrator (IAA).

3.2. Clinical Systems Management Group

3.2.1. The Clinical Systems Management Group (CSMG) was initiated in order to provide a structure to bring together a number of clinical systems utilised in the organisation, and to provide a governance framework for the development and reporting on those systems. The integration of planning, and alignment of goals across the clinical systems remains a primary responsibility of the group.

3.2.2. The Terms of Reference of this group are embedded in Appendix 2 of this document. Those terms continue to evolve as new stakeholders are identified.

3.3. Areas for Focus

3.3.1. As RiO becomes embedded in Trust processes, a number of priority areas for management have become evident.

3.4. Clinical Standards.

3.4.1. The processes set up for RiO and other clinical systems directly influence clinical standards. For example, the RiO printable Care Plan is generally felt to be badly formatted and overly complicated. This is however the format many service users receive their care plan. Understanding of how staff should use RiO to construct a care plan directly influences the content of that care plan. This in turn affects how service users feel about their involvement in the care plan, and is reflected in national and local feedback.

3.4.2. Clinical leads need to be fully integrated in the decision making processes concerning Clinical Systems. The membership of the CSMG aspires to ensure key stakeholder involvement. By ensuring that stakeholders are agreed on the required clinical standard, guidance and training can be then best aligned to achieve those standards. The CSMG has addressed a number of clinical standards issues and these include: validation of entries by non registered staff, and changing the default time and date of entries. Many of the concerns about data management identified in the SHA report on Wiltshire data issues are now being managed through the CSMG.

3.5. Integration.

3.5.1. There are forty clinical systems in use in the Trust at the present time, disregarding any local access databases created in work groups. Other systems are in development. Many of these systems contain duplicate information. The resulting double entry of that information has a direct influence on staff attitude towards those systems and the amount of time spent entering information. Most of these systems do not communicate with each other. The failure of any local/unofficial access databases could result in the loss of important data.

3.6. Strategy

3.6.1. As we bid for new business we are increasingly being required to use commissioner-led information systems rather than our own. This again raises the question of double entry for staff, the status of RiO as the primary record for service users, or possible lack of ownership of our own clinical records where RiO is not utilised. It also has implications for data ownership, and the resultant governance responsibilities. The ‘owner’ of the patient record is recognised as the ‘owner’ of the clinical issues for that patient. The CSMG works closely with CIOG and other groups in the Trust to consider issues and make recommendations about clinical records and clinical governance.

3.6.2. In order that clinical systems do not have a limiting commercial effect on the trust, a Clinical Systems Strategy will be required to address these developments. This is part of the CSMG Workplan.

3.7. Coordination and Planning

3.7.1. A process required for the successful operation of one system may have a direct effect on the processes of another, such as CAST and RiO, or Ascribe and RiO. The potential for conflicting demands upon systems and staff requires consideration. Two recent examples are the decision needed about where an allergy should be recorded – Ascribe or RIO or both - or what should be contained in a Contingency Plan. These decisions have a direct effect on user understanding and quality of care. Coordination and integrated planning across projects with existing clinical systems is required to minimise these negative impacts or double entry requirements.

3.8. Communication.

3.8.1. As noted above, the silo approach to systems development and management has provided the environment for mixed or conflicting messaging. This can be improved by coordination, joint planning, clear definition of terms and integrated communications. The CSMG has a key role to play with this.

4. Service User Experiences

4.1. Mobile Devices

4.1.1. One of the ways identified to directly influence service user experience is to bring the clinical record closer to the service user, recording as close to the point of contact between the staff and the service user as possible. Not only will this increase the quality of care the service is able to provide but will also help service users understand the nature of the clinical record and be able to contribute to it in more meaningful ways. An example for the future might be the potential to sign an electronic copy of the care plan in real time.

4.1.2. In order to achieve these benefits it is recognised that mobile access to RiO for our service user facing staff is highly desirable.

4.1.3. A mobile working pilot is being rolled out to 19 users in total across PCL, SDAS, and Secure services teams in order to access clinical systems, primarily RiO. Users will access Trust systems using 3G connections via laptops and citrix software. The pilot is expected to be completed by 15 Jan 2013.

4.1.4. During the pilot, members of the IT team will visit each user/team to obtain feedback and to develop finalised training material and guides. If the pilot is successful, each business unit/area can raise a business case to procure the mobile working solution. We expect the mobile working solution to be rolled out Trust wide starting April 2013.

4.2. Printed Care Plans

4.2.1. One area of limitation with our present version of RiO under the BT contract is its lack of local configurability. This is particularly evident in areas of direct service user communication such as editable letters and the printed Care Plan. The printed Care Plan from RiO has been criticised by staff and Service Users for its confusing lay out and content. A review of options is being considered which includes using the RiO Viewer to generate Care Pans as the system can be configured locally by AWP. In the medium term AWP is supporting 2gether Trust who have requested a change to the system on behalf of NHS RiO users in the South West, making the printing of care plans more flexible. It is hoped that this will be delivered in the first quarter of 2013.

5. Staff Experiences

5.1. Care Plan Review

5.1.1. In 2012, the senior nursing team conducted a review of care planning across the Trust. Nearly 200 staff participated in the review. Whilst the review looked at the wider issue of care planning, one of the largest areas of concern from staff was in relation to the Care Plan Library (CPL). Whilst a small number of teams had successfully utilised the CPL a significant proportion of staff who responded as part of the review did not feel the format or content of the CPL assisted them in their work. It was suggested that the Trust requirement to utilise the CPL may have contributed to a deterioration in the quality of completed care plans.

5.2. PBR, the Care Plan Library and RiO 1.1

5.2.1. The Trust has been working with the local commissioning lead for Payment by Results to generate information that can identify the provision of an agreed number of interventions linked to each care package. The CPL was developed to provide a framework of those interventions from which personalised care plans could be developed. Whilst there have been small pockets where teams have been able to generate this information using the CPL, on the whole, feedback from staff suggests they have found the CPL to be not conducive to meeting the other needs placed upon a care plan. A workshop led by the Deputy Director of Nursing and the PbR Clinical Lead provided an opportunity for different stakeholders to identify their requirements of a Care Plan. The workshop heard from users, carers, commissioners, and clinical staff and it is clear that a well constructed Care Plan that is able to meet the needs of users and carers, be in a printable and usable format, and meet the reporting requirements of PbR is a challenge.

5.2.2. However, the introduction of RiO 1.1 will provide an opportunity to try a different approach to recording the PbR information through the provision of two, more simple drop-down menus. Staff will select the appropriate options from simple problem and intervention category lists. After these are selected staff will be able to continue to use the Care Plan in RiO if they find it helpful. A decision on future use of the Care Plan Library and the interface with The Knowledge Centre is needed after the upgrade is completed. This is being considered by the CSMG.

6. Business Continuity

6.1. **Secondary Record**. At the outset of the RiO implementation project it was recognised that RiO could not provide the Trust with a vehicle to become totally paper free. The Trust would continue to require a method of maintaining some paper records not only in the form of official documents such as MHA documentation but also back up information for use in the case of RiO being unavailable. The Secondary folder exists to meet these two requirements. It is a temporary folder which remains as long as a service user is in contact with a particular service. At the end of this time the contents are processed, destroyed, or archived in the Historical folder. Further information can be found in the Clinical Wiki here: http://ourspace/Systems/RiO/Wiki/Wiki%20Pages/Secondary%20Record.aspx

6.2. Following the implementation of the Clinical Viewer the content of this folder and it's role in Business Continuity processes will require review.

6.3. **The Clinical Viewer.** The reliance on the secondary record RIO for business continuity purposes was identified as an unacceptable level of clinical risk. Within the present contract we could expect BT to remove RiO access for about six hours every two months in a planned way, for maintenance and new versions. Unplanned unavailability of the system has been less frequent but must be considered as a real risk. As the electronic clinical record becomes further embedded in AWP processes and the amount of clinical information contained in the database grows, so does the risk encountered when it is not available. Staff could not be expected to have a full and up to date record of clinical information printed and available in the secondary record at all times.

6.4. The Clinical Viewer has been developed and recently implemented . The Viewer provides staff with a view of RiO taken from the last daily download of the live system. The Viewer excludes any uploaded documents in RiO. Access is strictly tied to RiO access and audit facilities are available as within RiO. The implementation of the Clinical Viewer means that information which is never more than 24hrs old is available to staff through the Viewer. This limits the clinical risk when RIO goes down to an acceptable level.

7. Temporary Access

7.1. We continue to experience issues in regard to temporary access to the RiO. The use of Smartcards for access is a Department of Health standard but the management of this provides a number of challenges. Liaison with other trusts using RiO reveals the following:

7.2. Most Trusts polled (Devon, Cornwall, Dorset, 2Gether) continue to give supervised access to CQC, Secondary Opinion Approved Doctors (SOADs) and other such officials. The rationale given by these Trusts included that these official users needed help using the system and that they do not have the required Smart Card access. 2gether Trust have a system managed by their medical records department using four unnamed smart cards, booked out to individuals for use on a single public use computer. This necessitated registering four pseudo-staff on the spine. Other trusts were uncomfortable about this.

7.3. Where we have given our CQC inspectors smart cards and RiO access , Dorset have taken that view that external personnel should apply for smart cards through their own organisation. They would then take a view as to whether it was appropriate to open that card to their system. This view translates well to such personnel as student doctors and SOADs who could apply for and own their own smart cards before requiring access to AWP RiO. The process of enabling that card for use in AWP is thus much easier.

7.4. The Trust will submit proposals to the Clinical Systems Management Group in November 2012 on issues of temporary access.

8. Unsuccessful RiO1.1 Upgrade

8.1. RiO 1.1 was scheduled for implementation 23rd/24th September 2012. All RiO 1.1 workstream activities had been completed and the Go Live plan initiated for launch on 24th September (on Stack2 – a new hardware environment for RiO 1.1). Throughout implementation reassurance from BT had been sought and given regarding RiO 1.1 performance.

8.2. However, following SERIG meeting (19th September) where performance concerns were raised by other Trusts, further reassurance was sought by AWP in partnership with SPfIT Service Delivery team and the SHA. On Thursday 20th September, BT acknowledged there was a problem and stated that they could not guarantee service. They asked for additional 24 hours to investigate and resolve. Subsequently, on Friday 21st September (less than 2 hours before AWP committed to Go Live) BT stated that they had resolved the issue but required further time to evidence solution.

8.3. Given the timescale and possible clinical impact (both on AWP and other Mental Health Trusts already live on Stack2) AWP, SHA and SPfIT Service Delivery team jointly concluded the risks were unacceptable and notified BT that AWP would not proceed.

8.4. A new implementation date of 10th/11th November has now been agreed. Monitoring of RiO 1.1 performance on Stack 2 continues and service levels have improved.

9. Performance and RiO

9.1. The implementation of RiO and its status as the electronic service user record allows the Trust to provide real-time reports that serve a variety of purposes. One of these purposes is to demonstrate compliance with service standards defined either nationally or locally – often referred to as 'performance' - by drawing data from RiO to show whether service users have (or have not) received the appropriate standard of care.

9.2. This information is shared externally with key stakeholders to provide assurance of the quality of the Trust's services, but is also used internally at a variety of levels. A key audience of this information are frontline managers themselves, who can access aggregated performance data that shows them how well their service is delivering against a given standard. Additionally, they can also access more detailed reports that tell them which service users have missed (or are about to miss) a key service standard – helping them to proactively manage their services and ensure that all standards have been met.

9.3. An important aspect of managing the RiO system is to ensure that this type of reporting operates appropriately, so that reports are valid and genuinely demonstrate compliance with the facet of service quality that they claim to. Responsibility for agreeing new reports sits with the CSMG. This highlights the need for robust SBU and clinical representation within the group, to ensure that 'performance' reports contribute or have clinical validity.

9.4. It is noted that performance reporting may measure quality by the existence or absence of specific data such as whether a Care Plan field has been completed. The quality of that care plan cannot be measured in this way as performance reporting does not measure quality of content. Regular auditing of files is an important part of each SBU's Quality Improvement Plan.

10. Meeting the needs of specific services

10.1. RiO as an information system is highly configurable in order to meet the needs of a large variety of services. However, the lack of configuration offered via the present contract does lead to an increasing lack of 'fitness for purpose'. Particular services

have felt the need to develop their own performance recording systems. The establishment of new services has raised the validity of some performance targets. This is highlighted in 'referral to treatment' times. Once information is entered into RiO the clock starts even though it could be argued that no referral to our secondary services has yet been made. This reduces the time any secondary team has to meet the performance requirements.

10.2. The difficulties experienced by such services raise two main questions. The first is the question of which information system(s) they should use and in what way. This question will be addressed through the CSMG and informed via a Clinical Systems Strategy and RiO Principles. The second issue is about which performance indicators should apply to which service. Presently this remains a discussion between the service lead and the Head of Information Management, ratified by the CSMG. However this may be open to review as the question of which quality standards should apply is not strictly a systems issue. These issues impact on the performance and subsequent reputation of the Trust, but also on staff perceptions of RIO as primarily a management system rather than a clinical system. We have seen this 'played out' recently in the example of 'clinically inappropriate' indicators, and in the SHA Wiltshire data review.

10.3. Examples of other services relationship with RiO are given below.

10.3.1. Specialist Drug and Alcohol services find themselves completing a number of information systems. Many of these are mandated and owned by their commissioners in order to facilitate the sharing of information with their care partners, and the management of data collection. The use of RiO represents double and sometimes treble entry of information. This places pressure on the service.

10.3.2. The Primary Care Psychology Service, and SDAS CARAT and CJIT teams do not use RiO. The CJLS Prison services double record information on System One and on RiO. A recent bid for new business offered the use of IAPTUS and consequently the commissioners own version of that software became mandated in the contract for that work.

11. Future

11.1. RiO 1.1

11.1.1. As noted above, RiO 1.1 (RiO 6) will be implemented at AWP on the weekend of 10th November. This release forms a platform for three non-mandatory areas of functionality which AWP has not chosen to take at the present time. These are 'Results Reporting', 'RiO to RiO' and 'E-Prescribing'.

11.2. Changes to the Care Planning area will allow AWP to return to free text care planning. A lack of free text care planning has been described by staff as an impediment to good care planning. Free text removes this impediment.

11.3. RiO 2

11.3.1. AWPs strategic approach was to be an early adopter for RiO 2.0.

11.3.2. RiO 2.0 offers significant clinical benefits but also importantly an early slot positions AWP to be in the first wave of Trusts exiting CCN4 contract. There are 24 slots within the RiO 2 implementation plan (which excludes FOT – first of

type implementations). AWP has currently secured Slot 1 (though not confirmed). This would entail;

- RiO 2 Readiness assessment and project start-up activities December 2012 (covered by RiO 1.1 Budget)
- RiO 2 Project start date of April 2013
- RiO 2 implementation October 2013

11.3.3. As an early adopter AWP would carry some additional risks which would need to be mitigated through rigorous testing regime.

11.3.4. Historically, AWP has occupied Slot 15 whereby AWP would implement RiO 2 first quarter of 2014.

11.4. End of Contract 2014

11.4.1. RiO is provided under the national CCN4 contract which covers both SpfIT and LPfIT community and mental health trusts. This contract ends October 2015 and allows for trusts to exit from October 2014. However, it's difficult to perceive how provision will be made for over 40 trusts to exit within this window.

11.4.2. To facilitate CCN4 exit strategy an independent consortium (based in London) has been formed which AWP, along with number of other southern trusts, has joined. The consortiums aims is to have a framework in place for April/May 2013 whereby trusts can start negotiations for new PAS/CRS systems and hosting partners. Even within the consortium framework this will prove to be complex and protracted.

11.5. RiO Principles Refreshed

11.5.1. To ensure that the needs of service users and staff are best met and the quality of the record is maximised, the RiO principles have been refreshed. These will be consulted on in a timely way prior to formal adoption.

11.5.2. The proposed new principles are:

1. RiO is the primary component of a service users health record
2. Where RiO can do something electronically it will be used routinely.
3. Where other electronic clinical systems are required, the integration and synchronisation with RiO must be maximised
4. Information will be entered directly, in 'real time', by staff, where practical.
5. As much service user activity will be captured as is possible and safe to do so, reducing the use of paper records and other systems
6. The service user record, paper and electronic, will be valued as a critical part of providing an excellent and safe service.
7. Staff will need to demonstrate competency in using the system prior to access being given
8. Access to RiO will be consistent with agreed staff roles.
9. Staff will be supported to use the RiO systems consistently.
10. The RiO systems will be prioritised to ensure reliable access to staff is maintained across the seven day / 24 hour period

12. Risk Register

12.1. The CSMG maintains a risk register. Most of the risk are linked to RiO and include:

- downtime of this systems (this is mitigated for to a large degree by the recent go live of the Clinical Viewer.)
- lack of testing of the IT infrastructure and business continuity arrangements that support RiO
- Poor access to RiO for legitimate third party users
- Inconsistent recording processes used by staff
- Poor integration across different clinical systems.
- Change fatigue as clinical systems change and upgrade frequently

Report Contributors

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Appendix 1 – Clinical Systems in use at AWP as at August 23rd 2012-10-17

Type	Application
AWP Web App	AWP Clinical Portal
AWP Web App	AWP CAST - Honos Cluster Allocation Tool
AWP Web App	AWP RiO Viewer
AWP Web App	AWP Care Plan Library
Desktop	CVLT II (Californian Verbal Learning Test II)
External / Cloud	Carefirst (Adult and Child)
External / Cloud	Weston PACS
External / Cloud	Athens MyAthens
External / Cloud	Choice and Medication website
External / Cloud	Choose and Book
External / Cloud	IAPTus
External / Cloud	ICE Weston Pathology System
External / Cloud	ILLY Prescription system
External / Cloud	GWH Medway
External / Cloud	Midata
External / Cloud	NBT PACS (xray)
External / Cloud	NBT Powerterm Webconnect
External / Cloud	NDTMS DET (National Drug Treatment Monitoring System [Data Entry])
External / Cloud	NDTMS FUP (National Drug Treatment Management System File Upload Portal)
External / Cloud	NHS Mail (NHS.Net)
External / Cloud	PC-MIS (PCMIS) Patient Case Management Information System
External / Cloud	RIO
External / Cloud	RUH PACS
External / Cloud	Theseus - Bristol DAT System
External / Cloud	VPLS Pathology
Server Application	Ascribe Pharmacy System (APS)
Server Application	Ascribe Substance Misuse System (SMS)
Server Application	f2 Medical Devices
Server Application - Citrix	Emotion Trainer
Server Application - Citrix	AMPS 2002 (Physio assessment motor neuron)
Server Application - Citrix	AMPS 2005 (Physio assessment motor neuron)
Server Application - Citrix	Ascribe Queries
Server Application - Citrix	DKEFS (Delis-Kaplan Executive Function System™)
Server Application - Citrix	iPatient Records database
Server Application - Citrix	Maracis (MHIS Live)
Server Application - Citrix	Multilex Browser

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Type	Application
Server Application - Citrix	Opcrit (checklist for psychotic and affective illness)
Server Application - Citrix	Safeguard (NPSA Ulysses) Integrated Risk Management
Server Application - Citrix	WAIS - Wechsler Adult Intelligence Scale
Server Application - Citrix	WoE Secure Services - Forensic caseload management

Appendix 2 – Embedded documents

Clinical Systems Group Terms of Reference

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