Report to Kirklees NHS

West Yorkshire Urgent Care Service (GP Out of Hours Service)

Mobile Data Solution and Related Issues

Introduction

I was asked to carry out an external review of the mobile solution being used in West Yorkshire Urgent Care (GP Out of Hours Service) as concerns had been raised about its safety and usability. As part of the review I visited the two treatment providers (LCD and Care UK) and NHS Direct in Wakefield who carry out the receiving of calls, clinical assessment and dispatch to the treatment providers resources. The aim was to look briefly at all aspects to ensure the mobile data solution is contextualised in the whole pathway and the environment in which it is used. It was important to follow the data flows from the start of the process to the end point in the mobile solution to ensure they are complaint with the national standards and also recent changes such as those following the CQC report on events in Take Care Now and the report of the investigation into the Penny Campbell incident in London.

Background

Concerns about the reliability, usability and patient safety had been raised by local care direct in relation to the mobile solution supplied by TPP for use with Systm1 clinical information system. As a response to this Kirklees NHS asked me to review the solution in the context of the overall service and the environment in which it operates.

The Service

The service is provided by three organisations. NHS Direct who provide call handling and clinical assessment by nurses locally and nationally and GPs in West Yorkshire who are contracted from a locum agency. NHS Direct is responsible for the dispatch of the calls needing further input to the two treatment providers either in face-to-face centres or via home visits. Patients can also be sent directly to the ambulance service and to A&E as well as to the treatment providers.

Problems Identified

The inquiries and interviews with the staff in all three providers identified a range of issues relating to information flows, updating of information in a timely fashion, availability of information to front line clinicians, ensuring information passed receipt is properly and safely acknowledged. In addition the acuity of the initial clinical assessment output is such that it is at risk of compromising the safety and operation of other aspects of the service efforts should be made to reduce the percentage of visits being classified as Urgent. The service as a whole does not functionally appear compliant with the Primary Medical Services (Out of Hours Services) Directions 2006 that were issued following the investigation into the death of Penny Campbell in London.

Information Flows

For the sake of clarity I will only focus on aspects that cause concern or result in non-compliance with the regulations.

The requirement for notes to be accessible

Following the Penny Campbell case the requirement to ensure that notes of clinical consultations are recorded and accessible both to others in the service and to the patient's provider of primary medical services. The national standards also require that such information is made available to the patient's GP by 08.00 on the next working day.

When calls are received by NHS direct they are prioritised by a health advice agent. At this point the calls can be sent to:

999
A&E
Booked into treatment provider appointment
Nurse Advice
GP Advice

The system used is part of the NHSD CAS (Clinical Assessment System) . The nurse triage is carried out within this system. Medical triage is carried out within SystmOne.

When a call terminates within CAS there is a process for passing that information into SystmOne. To pass the information there is a matching process to match the CAS record with the Spine Records. The time this takes should be monitored as there is a potential for the system to become slow at peak call times.

Within System One it is not obvious when looking at the call that there may be previous episodes within the last 72 hours. Users in the out of hours period require it to be obvious that the patient has made multiple contacts on seeing the call on the task list and on opening the record. This needs to be addressed and until it is the system is not compliant with the Regulations

The PCT should also check the availability of previous calls on System One when there is a subsequent call requiring a visit and the GP surgery is not using System one.

Failure of call Transfer in System One

At the live demonstration we spotted the potential for calls not to be transferred from the NHSD Doctor to the provider of face to face with no flag that the call had no been properly actioned. This needs addressed by a fail-safe alerting system being added to System One.

Overall Workflow

The doctors assessing calls in NHSD and the supervisors in all providers do not have an overview of the total call loading within the system. This means that Doctors assessing calls in NHSD may be passing urgent calls into a system which does not have the capacity at that time to respond urgently to the patients need. If they have sight of the workload they have the potential to upgrade the response to ensure the patient receives timely care. The shift supervisors should also be able to see the overall workflow to enable them to target resources and respond in a timely fashion by adding resource if they see significant call volumes for example building in NHSD.

Repeat Callers with Open TPP Call

Repeat callers who already have an open call on System either waiting for Dr triage call-back or a home visit who call NHS direct cannot have a new call commenced on SystmOne. The nurse in NHSD informs the shift supervisor who adds a note the existing call on SystmOne and then has to call the service provider to alert them to the second call. The original disposition of the call cannot be upgraded until it is closed.

At the live demonstration this was confirmed. This requires to be amended and the system altered to allow this functionality.

The sum total of these system issues when combined make the information system non compliant with the regulations. The importance of PCTs checking the processes by which clinical decisions are made has been recently emphasised by the CQC in their interim report on the investigation into TCN. If information about previous consultations is not available to clinicians that see the patient later there are serious risks that should be addressed.

Mobile Solution

The mobile solution deployed is delivered on a Dell Laptop with an 8 inch screen, non backlit keyboard connected to the NHS network via an N3 connection to the central server holding the SystmOne records.

To log into the task list by which calls are passed to the mobile units the doctor/driver has to:

1. Logon to Windows.
2. Connect to the mobile network (Vodafone).
3. Logon using token to N3 VPN.
4. Log into SystmOne using individual smart card.

This process when carried out in a moving vehicle in the dark took 15 minutes when I was with the mobile team.

SystmOne can only be used and updated when the laptop is connected to the server. Sessions are supposed to retain information for 30 minutes when

connection is lost however this feature is not reliable. A more frequent result of losing connection is the machine seems to freeze and the staff then restart the machine with loss of any data entered after the connection was lost.

The Font Size on the screen is 6, which is difficult to read. The system does not readily alert the staff when it is not updating.

The lack of a backlit keyboard makes the process of using the laptop in the dark or poorly lit environment very difficult. There is a significant risk that the poor resolution combined with the lack of keyboard lighting will result in errors of data entry or recording.

The software does not reliably inform the user that it has not updated the task list, which means that the driver and doctor are unaware that new calls are not being received.

This system is the main mechanism by which calls are passed to the mobile units. The problems of connectivity updating and usability make the receipt of time-critical calls unreliable.

While previous history is available (subject to the issues already identified above) it has to be actively looked for and recent previous contacts are not actively flagged using colour or other mechanisms to draw the clinicians attention to the information.

When calls are passed to the car via SystmOne they have to be opened and updated to received. If this does not happen there is no mechanism to alert those sending the call that the call has not been acknowledged. There is a feedback system to NHS CAS that the call has been received within the SystmOne IT system. There is no feedback mechanism that alerts to non-acknowledgement. The system therefore does not fail-safe.

Given the deficiencies in the communications, the gaps in the information for some patients and the lack of some kind of 'hand-shake' without human intervention feedback to acknowledge safe receipt the mobile solution is not fit for purpose as currently configured. In addition the unsuitable nature of the mobile equipment makes it almost impossible to use in the environment in which it is being deployed. These deficiencies raise the risk to a level, which places patients at significant risk and requires immediate action.

Safety procedures

To ensure a safe system of information transfer the following procedures are being used to cover the deficiencies in the information systems.

- Service providers are keeping manual logs of calls received.

- Calls are sent by phone as well as via the system.

- NHS Direct are manually alerting providers to the calls from repeat callers, which may require a more urgent response.

- GPs are keeping paper records to be entered manually after the end of the shift as they cannot enter the information in the mobile solution. I observed 3 calls from the previous week, which should have been manually entered but were still waiting. The risk is up to date information is not available to clinicians.

The information system should not only capture patient information but also pass safety critical information to the next step in the care process in a way that can be relied upon absolutely. Any system which requires so many parallel manual safety procedures and work-arounds to ensure patients calls do not get lost must be classified as being unfit for the purpose to which it is being used.

The deficiencies are more serious when considered in the context of a complex provider network working across a number of different organisations. When one considers the volume of calls being handled I have no doubt there is a risk of significant harm to patients.

Performance

While we did not carry out a formal independent audit and benchmark of the clinical activity we did see internal audit documents from the service providers which showed up to 60% of the visit requests were being classified as urgent or emergency on receipt at the service provider. Whilst we expect the initial assessment by telephone to over-prioritise patients compared with the priority when they are seen face to face we cannot believe that 60% of cases need to be seen in less than 2 hours. By defining so many as urgent NHS D place a significant strain on the systems and processes of care delivery in the organisations responsible for face to face consultation. Combined with the deficiencies identified earlier this increases the risk that some patients will not receive care quickly enough to avoid significant harm.

Recommendations

To the patient a GP out of hours service should be just that. They are not (nor should they be) concerned about which organisations deliver it or what underpinning technologies and processes ensure the system is safe and effective.

I cannot emphasise enough the serious concern that I have in relation to the issues identified. Each issue on its own is manageable however when they all combine which they will do unless addressed they could replicate the situation found when I carried out initial work out as part of the national review of OOH services in 2000 which led to the introduction of national standards.

It is from this viewpoint that the recommendations have been developed.

<u>Information Flows.</u>

1. Compliance with the regulations

   a. The service should fully comply operationally with the 2006 regulations for ALL calls (including advice calls and calls passed to other services). In particular the PCT should make sure that "clinical notes of any consultation carried out by any health care professional …are to be recorded and made accessible for the use of—
      (a) any other health care professional performing services under that contract or those arrangements; and
      (b) any provider of primary medical services of which the person who is the subject of the consultation is a registered patient.
      ….the Primary Care Trust shall consider whether those arrangements are adequate to ensure that clinical notes of consultations are fully recorded and subsequently accessible for the use of those persons"
      (A copy of the full regulations is included at appendix A)
   b. SystmOne should have a process of visually alerting clinicians of previous calls relating to the current episode.
   c. The Mobile solution has to be of a type, which meets these requirements.

I am aware that there are a number of contracts involved in the delivery of the service. These regulations will apply across all aspects of the West Yorkshire service and not separately within each organisation.

The following action recommendations have been developed at the meeting on the 15th December 2009.

1. There needs to be the ability to update live calls on S1. Once the call is sent from NHSD and the patient calls again with changed circumstances it is essential that patient priority can be changed.

ACTION: NHSD (Lynne Parks) to log with TPP

2. Potential issues with delays in matching patients to the national spine at peak times when the system is stretched. This could cause delay in processing patient and passing through to treatment providers.

ACTION: ALL TO MONITOR AND KEEP ON AGENDA OF PROVIDER GROUP

3. Previous patient history not automatically available when patient call/file is opened. It was decided that a clear summary is needed, this should be prominent and INCLUDE PREVIOUS CALLS OVER THE PRECEDING 72 HOURS. IT IS ESSENTIAL THAT CLINICIANS MUST BE AWARE OF MULTIPLE CALLS/INTERVENTIONS IN A SINGLE ILLNESS EPISODE. TPP noted that this should not be problematic to resolve.

ACTION: RECECCA KILBURN (RK) TO LOG WITH TPP

4. There remains an issue with visibility of workload across the whole pathway.. All providers need to be aware of capacity across the system, as their decisions (on urgency, clinical need etc) are impacted by availability of the appropriate resource. Additionally, operational managers need this information as well. TPP noted that they have this functionality but providers had not agreed to share this information. LCD and Care UK agreed that this information should be made available. NHS D agreed in principle but wanted to establish whether this had been discussed previously before finally endorsing. If any party was not prepared to share this information then they would have a personal conversation with Mike Potts within the next 48 hours.

ACTION: RK, JACKIE CHANDLER (CARE UK) AND LYNNE (NHSD) WILL CLARIFY A JOINT POSITION TO TPP BY CHRISTMAS AND THE ISSUE WILL BE RESOLVED BY THE END OF DECEMBER

5. Patient handovers need to be automatically acknowledged as to whether they have been successfully received or not. Flags exist on some pathway routes but not on all. Also training issue to reduce potential for human error.

Shift supervisors must be in a position to know what has happened and to pick up on human error and respond.

ACTION: TPP TO ENSURE FLAGS ON ALL PATHWAYS ARE ADDED AFTER NHSD HAVE RESENT THE REQUEST. LYNNE WILL SPEAK TO ALISON TAYLOR (TPP) ON 16 DECEMBER

6. Each provider should ensure that each GP has the correct access rights on their smartcards (Registration Authority) to enable matching of patient codes against the spine.

ACTION: RK (LCD), JC (CUK), LP (NHSD)

7. Passwords expire without any warning –

Post meeting note: enquiries of the Registration Authority indicate that a warning is flagged 30 days in advance of expiry. However if the smartcard isn't used the user will not be able to see the warning.

ACTION: IAN WIGHTMAN TO FOLLOW UP WITH RA AND CHECK

Though this was not discussed in detail at the meeting (though many of the points above relate to, and require, the improvements below) it was assumed that there was general agreement on the way forward. This is as follows.

8. The mobile solution.

a. The system should be amended to provide an electronic hand-shake to confirm receipt of calls and to notify the individual sending the message if calls are not acknowledged within a reasonable time-period of being sent to the mobile unit. The system should be designed to fail safe and re-transmit the message in the event of an interruption in communication.

b. The system requires full offline functionality so it remains full usable to enter notes etc and the ability to update in both directions when online status is resumed.

c. The communications process and protocols should be such that logging on and connecting to review information is considerably faster than appeared to be the case when we observed the operation.

d. The system should clearly alert users that it is operating offline and is currently not being updated live.

The current hardware should be replaced to deliver the following functionality:

e. The size of the screen display and the resolution should be suitable for the operating environment and provide a large enough area of the template to make the units practical to use with the vehicle in motion.

f. The keyboard should be backlit to ensure accurate data entry in the mobile environment.

ACTION: PROVIDERS AND TPP TO WORK THROUGH RELEVANT ISSUES ABOVE AND ENSURE IMPROVEMENTS ARE PUT IN PLACE AS A PRIORITY. A PAPER NEEDS TO BE SUBMITTED TO THE IMT GROUP IN JANUARY OUTLINING A CLEAR PLAN IN RELATION TO HARDWARE AND ISSUES LISTED ABOVE.

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