bcs Primary Health Care SG
The Chartered Institute for IT

Summary of Clinical Computing Special Interest Group (CLICSIG) meeting

The impact of COVID-19 on Primary Care Health Informatics

This Clinical Computing Specialist Interest Group (CLICSIG) meeting was attended by 13 BCS/FCI members with an interest in health informatics (12 face to face attendees and 1 online). Roles of attendees ranged from General Practitioners, ICS/CCG Chief Clinical Information Officers, employees of organisations providing support to either primary care or national organisations with regards to data, information, vaccine uptake monitoring or systems to support vaccination against COVID-19.

This face to face meeting followed on from an **online webinar** hosted and delivered by the Primary Health Care Specialist Group in **March 2021** that explored the new digital innovations designed to address the challenges presented by delivering care to patients in a new way.

Post COVID-19: Is digital the future of Primary Care? *Where we are now, and where do we want to be, in delivering safe and effective healthcare.*

The CLICSIG meeting started with a summary of discussions/experiences shared during that webinar so as not to repeat any aspects unnecessarily.

- Post pandemic – increased use of NHS website, NHS App, NHS apps library, NHS 111
- Pros and cons of web-based triage products
- Increased use of remote consultation software and others such as digital stethoscope, consultant connect, home self-testing kits
- Long term condition remote management – apps, texting, wearable tech, Virtual Reality
- Is general practice about to change? Virtual workforce use. Future need for GP buildings and estates? New models of primary and secondary care.
- Diversity of software versus standardisation
- Considerations regarding the use of data and patient access
- Real patient perspective with multiple conditions

CLICSIG Key Themes

- Challenges brought by the pandemic - we considered the perspectives of:
    a) primary care clinicians

    b) implementing organisations

    c) patients (and their families or carers)

- Disinformation campaigns in the press/media

- Recommendations from the group

- New Software Kids on the Block – what was their impact?

- Data flows in the NHS during the pandemic

1. **Challenges brought by the pandemic:**

Huge increase in patient demand due to pandemic and due to an overflow from a struggling secondary care system, coupled with **a rapid move away from a face-to-face delivery model to a model where the majority were delivered remotely.**

Some consultations were done by video initially, but this was found to be at times less effective (poor quality or low bandwidth) or unnecessary with telephone proving an easy and effective solution (including with patients).

a. ***Clinician perspectives*** *– Challenges regarding use of personal mobile phones and withholding of number. GPs missed being able to look patients in the eye and strongly encourage behavioural change where it was needed compared with a telephone call. Requirements for tel. consultations differ and often longer time is needed with the patient as there are much more things to consider (things you would naturally pick up in face-to-face situations) plus 2 years' worth of issues to discuss in some cases!*

Groups of 'missing patients' who stayed home and did not make contact (eg shielded patients) who are now re-emerging, often with serious or complex problems.

Challenge of setting up local phlebotomy service (then subsequent blood bottle shortage) but some successes including home delivery of remote monitoring technology such as pulse oximetry to help with remote decision making.

Increased use of remote responses to patient investigations eg text messages advising that blood test results were normal and to review in 6 months etc. Again, helping to free up telephone lines. Important that message content is stored within the solution for medico-legal reasons but equally are still accessible/retrievable in years to come.

Evidence that mental health consultations worked particularly well remotely (well received by patients) and helped with capacity.

Some services (such as DESMOND for diabetes patients) went online meaning for some (eg 70+ year olds without online access) couldn't access the service at all and are still waiting now.

b. ***Implementing organisation perspectives*** *– Workload and capacity was a major problem for some practices resulting in some solutions being less well configured. Those practices that embraced the need to change their business model fared better. A large number of practices struggled to implement some or any of the solutions that were deemed useful or essential (eg some still don't offer any form of online appointment booking). Urgent need for a "lessons learned" piece to share best practice - what worked well and how successful practice went about implementation (less about how to use the tech and more emphasis on business change and process change). Also, useful to have a definitive list of requirements for solution functionality.*

Practices needed to move from a fast flowing 'free text' enquiry model to a structured method that allowed admin staff to direct enquiries to different staff roles. This required planning but was hugely effective in helping practices to prioritise and easily spot urgent requests.

Evidence that patients were changing 'red flag' responses to triage questions in order to achieve the outcome they wanted (or wanted to avoid such as 999). What

mechanisms exist to review patients changing their answers or checking that those advised to call 999 actually do this. Experience has shown that those not wanting to do so can often be persuaded by the GP where necessary but this aspect now missing with online software.

Clinical Safety assessments (of any software being implemented) was harder to do in a virtual environment particularly when mostly dealing with tech teams who had little clinical input into the product. Trying to implement solutions very quickly is very challenging from a clinical safety perspective. Worth noting that, under the Health and Care Bill, NHS Digital will be subsumed into NHS England in the near future, and it is unclear what impact this will have upon the approval/supervision/regulation of new solutions.

c. ***Patient perspectives*** *– Local phlebotomy hubs were often hard to book into (or not possible). Confusion caused by practice websites which did not explain how patients should make contact, what the practice approach was to triage and remote vs face to face consultations (or closed-door policy). Legacy methods of contact were often left on websites alongside new methods (such as e-consult), causing confusion and delay to enquiries. No clear route for admin enquiries in some cases, meaning needless answering of triage questions in order to submit a request. Still evidence of patients being asked to call back the next day or struggling to get through on phone lines (no bypass line for other HCPs such as paramedics either). Answerphone messages were extended and long. These still exist now and should be reviewed. Not necessary that patient listens to 4-minute message before choosing an option.*

Rapid increase in solutions that were digital but not all patients have equal access eg. smartphone access, enough available data, digital literacy, non-english speaking, digital disability divide. Important to direct those who are able, towards digital solutions, leaving phone lines free for those unable to use them.

Good features *include better access to GPs or hospital Consultants via telephone. Quicker response from GP in many cases (most are same day if not within a few hours). Can continue working whilst awaiting call instead of sitting in waiting room at practice. Some telephone systems added patient position in queue which is really useful for knowing whether to wait or call back later.*

Patients accessing counselling or mental health services for the first time found video consultations important initially as it is helpful to have an image of the person you are talking to in order to help create an environment of trust/safety. Once established, perfectly ok to then move to telephone consultations for subsequent sessions (which then also helps avoid tech issues with poor signal!)

2. Disinformation campaigns in the press/media

Despite the headlines, most practices never stopped seeing patients face to face but did need to implement a "triage first" system to establish who could safely be consulted remotely and who needed to be brought into the practice (in a safe way) for review. This 'closed door policy' was necessary to keep both staff and visiting patients safe but came with its own logistical and practical challenges with regards to sanitisation, social distancing and technical capability (ie enough equipment in each room rather than shared resources). This also applied to GP Out of Hours services. Not forgetting that many staff themselves had to self-isolate and thankfully remote consultations could continue in these circumstances.

3.   Recommendations from the group

If you are changing the way your practice operates, make it clear to patients how to use new system including notices (website -plain simple positive language) for those not using integrated online systems. Make it clear how patients make contact. Putting something on twitter is not public engagement.   A poster in a waiting room when doing online cons. isn't helpful.

Need some best practice guidelines for the solutions. The best practices are already doing it well but need to share with others. FAQs or short Q&A documents are also good – don't need to focus on long documents.

Consider change management implications and plan for implementation. Local IT need to go out to practices to see what the issues are and discuss.

Consider inclusion of digital solutions and remote consultations in the Good Practice Guidelines for General Practice.

Recommendations for design and features of solutions are needed.

Enable the facility for patients to know you have called (instead of unknown number) and allow bypass of phone messages to various options.

Consider what we learn from other industries (eg banking) we don't need to start from scratch with digital solutions and user interaction.

Consider the digital disability divide – consult the accessibility standard when communicating.

Challenges that remain:

1. Levels of patient demand – not helped by the lowest ever number of GPs and growing population or increased localised populations caused by new concentrated housing developments without plans to increase local GP/primary care provision
2. Patient expectations – patients have been receiving a good service (in the main) with same day response to clinical enquiries, but the expectation of immediate response is now apparent
3. There remains a need to improve asynchronous working and communication and systems that support that. We have moved on from a world where you can only communicate with your practice during opening hours (making an assumption GPs have to move to 24/7)
4. Improved use and acceptance (by patients) of other staff roles within the practice. Not all requests need to go via GP. Direct physio referral, Practice Pharmacists, blood tests done before GP appt etc
5. More support is needed from national professional member organisations (eg BMA, RCGP etc) to defend general practice against disinformation campaigns
6. Changes to practice announced in the press or via social media publicly before practices (who are heavily involved in implementation) are even notified. Patients find out at the same time as primary care organisations do.

4. New Software Kids on the Block – what was their impact?

One of the remits of the Joint GP IT committee was assessing whether systems and solutions were fit for purpose. Historically some were deemed not to be as data sometimes ended up in 'cul-de-sacs'. Does that apply to these rapidly developed new solutions?

Yes, the same issue is present in some solutions. Consider a well-known document management solution.   The original copy of the letter remains on the software provider's server, a copy is then stored within the GP clinical system. The practice can redact elements for sharing with the patient (on the copied version). When the patient moves practices, the copy moves with them, not the original as no EMIS API exists with the solution provider.

For another remote consultation solution, future dated entries likely won't move with the patient as they are not attached to the patient record. Reports of an issue with this system provider changing scope of software after implementation, that allows sharing of patient record with external care providers (for that patient). How clear is this data sharing to practices and patients? Reports of all staff (even locums) being asked (by the software) "Do you want to enable record sharing?" which is not appropriate. Once accepted, this would be hard to unpick. Problems here from an information governance perspective. For an Out of Hours clinician, this record sharing function is really helpful as it avoids the need to log into 3 different systems but need to consider the implications for patients and GP data controllers.

The rapid influx of new software providers who do not have a background in the sensitivities of handling health data coupled with a move fast and break things approach is not good in this domain. Best approach is 'do no harm' and to consider clinical safety. Steep learning curve for some on the potential impact of their solutions.

It is worth acknowledging that many of these solutions have helped to transform primary care over the pandemic and enable remote consultations.

Who is responsible for oversight or regulation of these new solutions?

If it is a service regulated by NHS Digital, then they would provide the oversight. If it is considered a medical device, then MHRA has a process involving paperwork, assessment and a fee. For third party/independent solutions, there are various routes to raise concerns but currently no clear mechanism to undertake a review and remove them from the market if necessary.

What tends to happen in reality, in the absence of regulation, is lots of red tape and tick boxes get put in the way (paperwork etc) for a big company that's fine. What is really needed in these companies is leadership. As a provider, in the absence of regulation, you can try your best to do what you think you need to do. You should have some metrics/information available to defend why you did something in a particular way. Clinical leadership (or clinical safety per se) should be insisted upon for these solutions. Ideally clinicians would form a part of the development team.

5. Data flows in the NHS during the pandemic

GDPPR data flow (data for pandemic planning and research) collected under COPI notice using GPES is a data flow being used by many research projects. It is identifiable data. It only extracts data for those patients on one of the other GPES lists (eg hypertension, diabetes etc) - it includes a rather large dataset. Practices have no control over the flow. It was collected at request of RCGP in response to an unprecedented amount of data requests to practices to help to cope with the pandemic. A professional advisory group was set up to oversee all requests. GPDPR was attempted to be implemented at same time (section 259 data provision notice). Though the usual data protection and confidentiality concerns were raised and its now gone back for consultation. Official line is that it is still planned to go ahead once public dialogue has taken place but there is no defined timeline known.   Most people were happy with the pandemic requirement for data to flow to assist with the response but what we've learned with GPDPR is that feelings toward mass collection have not changed and consent is specific to pandemic requirements.

There was some concern expressed from the research side that GPDPPR wouldn't include all that was needed. There are some key data items missing, so where do you go to get this? System suppliers are the obvious route (though one supplier is not able to provide any data currently).   NHS Digital might be another route if they have it all. OpenSAFELY ended up being the only place to get the data in question. Surprisingly, even where there was a clear need for data provision (such as a particular request to assist with monitoring and call/recall for vaccine programme specifics), it was refused on the grounds of not being direct patient care despite legal act (2012) that overrides all other guidance.

Need to exercise caution over COVID-19 vaccination rate data. Nationally they are reported using GP practice registers as the denominator but once you examine local data (at LSOA level) the denominator is defined using ONS data. This results in vaccination rates over 100% for more than have of the defined groups.

In a particular region, they were named in the press as having the worst vaccination rates in England. The cause was its location and border with Wales where many patients chose to be vaccinated. Data did not flow between the two countries. After much work to make the data flow, the vaccination data has improved greatly. Cross border data flow is very complicated from a legal perspective as each country has its own rules about what data can flow where and which data can be received.

Data flows in and out of practices vary greatly but it would be useful to know the main flows. Inbound data largely flows via interfaces such as Mesh mailbox (lab results, x ray results and other), NIMS (National Immunisation Management System). Suppliers also use a proprietary interface for others. Outbound data flows can be more difficult - for suppliers such as Graphnet or Apollo flows get merged and then separated out again.

For COVID vaccination data, the implementation was difficult. Changing codesets at the point of implementation (resulting now in interchangeable use of booster code instead of 3rd primary dose code etc) and use of Pharmacy Pinnacle system to record vaccination with a flow to general practice.

It must be acknowledged that system suppliers have made a huge effort in getting solutions to work. They have proved they can achieve fast turnaround on products and this should not be forgotten. We should not return to a 'comfortable' slow pace.

Report in memory of Leo Fogarty - past chair of the health informatics group of the RCGP and the BMA and RCGP's joint computing group. He was a founding fellow of the UK Faculty of Clinical Informatics and a towering figure in the world of clinical informatics in the UK and beyond