Advisory Board Meeting Minutes, 24th October 2019

Venue: British Computer Society, Ground Floor, 25 Copthall Avenue, London, EC2R 7BP

Meeting Chair: Dr Afzal Chaudhry (Vice-Chair), Dr Philip Scott (assurance committee Chair)

Present:		
Dr Afzal Chaudhry (AC)	Dr Iain Carpenter (IC)	Martin Orton (MO)
Alannah McGovern (AM)	Dr Ian Thompson (IT)	Dr Michael Thick (MT)
Andy Mitchell (AMi)	Dr James Brown (JB)	Mike Andersson (MA)
Ben McAlister (BM)	Dr Jeremy Wyatt (JW)	Dr Nick Booth (NB)
Dr Cheryl Battersby (CB)	Dr Julian Costello (JC)	Pauline Swan (PS)
Chloe Adams (CA)	Dr Karen Selby (KS)	Dr Philip Scott (PSc)
David Watts (DW)	Dr Keith Strahan (KSt)	Ross Scrivener (RS)
Dr Gareth Thomas (GT)	Dr Laszlo Igali (LI)	Sarah Jackson (SJ)
Hannah Farndon (HF)	Laura Cameron (LC)	Stephen Goundrey-Smith (SGS)
Helene Feger (HFe)	Lorraine Foley (LF)	Steven Casson (SC)
Hermione Jackson (HJ)	Marlene Winfield (MW)	Suzy England (SE)
Guests:		
Bernard Crump (BC)	Leanne Summers (LS)	Shivani Shah (SS)
Emma Robertson (ER)	Pauline Swan (PS)	
Graeme Allen (GA)	Dr Reecha Sofat (RS)	
Apologies:		
Alexia Tonnel (AT)	Dr Peter-Marc Fortune (PMF)	Obi Amadi (OA)
Dr Ben Bloom (BB)	Dr Phil Koczan (PK)	Dr Rhidian Hurle (RH)
Caroline Cake (CC)	Mandy Burns (MB)	Sharon Drake (SD)
David Seymour (DS)	Prof Maureen Baker (PMB)	Sophie Randall (SR)
Euan McComiskie (EM)	Myer Glickman (MG)	Dr Timothy Yates (TY)
Indra Joshi (IJ)	Laura Fulcher (LFu)	Dr Victoria Tzortziou-Brown (VTB)
Dr John Williams (JWi)	Natalie Koussa (NK)	
Kim Bellis (KB)	Dr Neil Sebire (NS)	

1. Introduction

New joiners were welcomed:

AC welcomed Sharon Drake, representative of the Academy of Medical Royal Colleges (sends apologies), Dr James Brown representative of the Royal College of Surgeons and Dr Wajid Hussain representative of the Royal College of Physicians (apologies).

AC then welcomed Health Data Research UK (HDRUK) which recently joined as a member. Neil Sebire will be the representative (sends apologies). HDRUK was set up by the government in conjunction with major charity funders who have committing to a stream of funding over a 20-year period with the aim of promoting digital research through a collaborative approach across the UK.

Those attending the advisory board for the first time were welcomed and introduced themselves:

Hermione Jackson (Royal College of Midwives), Hannah Farndon (British Psychological Society), Andy Mitchell (NICE), Dr Reecha Sofat (University College London), Shivani Shah (Patient's Association), Abi Henderson (Chartered Society of Physiotherapy).

MT who has represented Tech UK on out advisory board is leaving the organisation. He spoke about the importance of better understanding how we can bring industry into standards, so they can form the basis for contractual requirements in due force. A formal endorsement process has been agreed to consult with Tech UK members and reply within a fortnight. This process is being tested with the medications project.

2. Minutes, actions of the last meeting and matters arising

Corrections:

Minutes approved.

Matters arising

AF said that at the previous meeting Anoop Shah spoke about the completed diagnoses recording guidance and appealed for offers and suggestions of areas in which to test the guidance.

Action: reconsider Anoop's previous request to propose test sites for the diagnoses recording guidance.

PS invited members to a University of Portsmouth workshop he is hosting titled 'trust and governance for next-generation clinical decision support' on **5th December 2019** at the PRSB offices in London. Email philip.scott@port.ac.uk if you would like to attend.

3. Chair and CEO updates

CEO

LF thanked Michael Thick and thanked the British Computer Society for hosting us.

LF then spoke about the future of the organisation, explaining that there is a short time issue regarding money and the fundamentals of how we engage with the system. LF explaining that we have been proactive, recognising the need to diversify, moving towards a different kind of business

model and mentioned conversations with the North of England Commissioning Support Unit about partnership which would bring us under the safe umbrella of a bigger organisation making it easier to operate and opening up opportunities whilst retaining our independence. LF appealed for help and support from the members going forward.

IC said the transformation that led to the establishment of the PRSB was recognition that clinicians and patients need to be in the driving seat regarding standards development. Professionals and patient standards development is why PRSB is so important.

AC agreeing with Iain, spoke about the paradox that PRSB's offer is entirely in alignment and massively contributing to what the centre of the NHS want to do.

IT explained that the Scottish response to the business changes letter will be put together on 6th November at a national meeting. IT said if PRSB ceased to exist it would only have to be reinvented, he also mentioned the benefit of wide membership with grassroots clinicians working together to develop standards and encourage implementation and use.

SGS said the pharmacy profession have very much been behind the PRSB from the beginning, agreeing that if PRSB were to cease we would have to reinvent it to get towards a truly integrated NHS. SGS explained that there are over 40,000 community pharmacists that haven't been included as part of the NHS family, despite providing direct patient care. NHS Digital is currently implementing the pharmacy flows standard, allowing flu data to flow into GP surgeries but there is lots of work left to do.

AC asked members whether they are supportive of the approach PRSB are taking?

RS said he would like to reiterate everything people have said so far and add that the relationships the membership enables through speaking with colleagues is really valuable, as it the educational benefit of these meetings. RS asked for some further explanation of NECS.

LF explained that NECs is a Commissioning Support Unit with 1200 staff, whom among other things, work with frontline organisations for IT implementation. LF said that Derek Felton one of PRSB's non-executive directors introduced us to NECs and although we are not yet at decision point, it would be good for the advisory board to meet Stephen Childs, NECs managing director.

PS reassured that NECS is not a commercial organisation despite the initial political ambitions that surrounded CSU's. It's size and capacity means that PRSB can operate in their environment but maintain professional independence.

KS said she has spent the last 2 years working with PRSB on the maternity standard and that PRSB insists we remember the patient and clinician and exposes members to other professionals we wouldn't otherwise be linked with.

MT thought it was important for PRSB to make the most of the political opportunities currently, big data is worth 10 million a year and without it artificial intelligence will not work. MT also advised we work closely with the influential CIO and CCIO network.

MA said that the British Computer Society highly support the PRSB, and thinks PRSB maintaining independence is key. MA cautioned that conflicts of interest that will likely be questioned and that CSUs are always at risk of being abolished. Suggested we look to government organisations with a social care budget who might support us?

NB said he has been involved with NECs at one point and said that bringing the gap between production and what is being implemented in systems is vital.

AC told the advisory board that we will continue to update them and will get back to enlist further support.

4. Integrating Care Programme Product Visions

GT, senior responsible officer for the integrating care programme at NHS digital, apologised for not attended the meeting in person due to an emergency clinical situation this morning.

Programme oversight

GT spoke about the **national record locator** to identify when someone has a mental health care plan. So far, 85,000 care plan pointers uploaded. From November 2019 onwards record retrieval of a PDF document will be enabled. The next stage is more generic care plans.

GT explained that they are proposing to work with existing local health and care record exemplars as part of their contract is that they are able to integrate with the national record locator.

GT then spoke about progress with the **national event management service** in the child health programme, alerting across systems of events like birth, death, change of GP and change of address. The key is understanding what an event is and how it should function within a record.

GT **summary care record application** overview. NHS identify allows secure logon across a range of devices in a clinical setting enabling the summary care record to be visible on an iPad in the back of an ambulance. There will be wider role out across London and different care scenarios considered as well as windows compatibility developed. There has been positive feedback so far. Where do we identify where super use cases are?

GT end to end **transfer of care** information mandated with a deadline of October 2018. Nationally there are different capabilities across different suppliers with differing deadlines.

GT reasonable adjustments are a requirement of the equality act. Capability of flagging reasonable adjustments is simple from a technical point of view but has a huge impact on a patient's care. There has been a pilot face with Gloucester and Devon learning disability services.

GT said he would like to start a conversation with the advisory board and get some feedback on suitable test sites and further implementation.

AC thanked GT and asked for comments.

LF said this is a really important programme central to interoperability. Do you want to know about this? We have spoken with GT about transfer of care, it is moving forward some of the technical barriers. PRSB keen to support this as wide adoption of transfers or care would be of huge benefit.

KS mentioned that NHS identity is being piloted in a care home, avoids overheads of smart cards and so on. NHS digital are evaluating funds for social care standards, with new national projects for standards for information sharing.

Action: AM to put KS and GT in contact.

PS asked if these are PRSB standards being implemented? PS explained that he has tried to engage with NHS digital about first of type testing. How will you be determining how this gets rolled out and to who?

GT clarified that a stakeholder reference group decides our direction and how we evaluate, increasing the number of members in that group is important. GT would value direct feedback of the problems to date and how we could make this better.

GT said that because of the nature of first of types, transfer of care is a difficult area - secondary care system can connect to a GP test harness and the information can flow. For use cases, we need engaged organisations who can demonstrate early pilots – we are hoping to work alongside PRSB to achieve this.

SGS thanked GT. From a pharmacy perspective a case studies would be interesting, information on how pharmacists are using the summary care record generally and skills needed going forward in a digitally integrated NHS.

GT said that work with the pharmacy project started in July and will connect SGS with colleagues for more information from the pilot.

Action: AM to put GT and SGS in contact.

Action: LF will distribute a paper so the advisory board can consolidate a response to Gareth.

5. Pharmacogenomics

RS clinical lead on the pharmacogenomics project described the progress so far. AC is the SRO for the project.

RS said that professionals are now and will continue to receive new information on genetic variants and how these influence the way in which the body handles drugs. This aim of the project is to develop guidance for actionable information alerts for a prescriber. NHS England who commissioned this work, are doing a systematic review of the drug gene pairs in specific disease areas such as cardiovascular. Pharmacogenetic testing has been opportunistic up until this point and not standardised particularly in America. The 100,000-genome project means that the genome will be in the health record which is a notable difference.

RS described the projects scope, surrounding the conditions in which to trigger an alert, who should be alerted, alert categorisation, pre and post-test alerts, the information shared in an alert and any responses to it, guidance, benefits and impacts. The project scope does not include where the information or guidance is stored or how alerts are presented. We think guidance should be developed for interruptive and post-test alerts, that minimise unintended consequence of alert fatigue and that prompt a medication review. Guidance could be developed for alerts that prompt an order for a test.

RS identifying the limits to standards being implemented in this area is importance, discovering the best interface for alerts is also important.

DW questioned how NHS Digital will prioritise in this area, interested in consultation recommendations regarding mental health

IC asked how we broaden the clinical input of what really happens in life that then links with pharmacogenomics? Using the example of older patients often taking multiple medications.

MW said we are going to involve patients in the proceeding focus group, pharmacogenomics references some highly sensitive things.

LI we need to bring in augmented intelligence and a user interface element. If it is helpful for clinicians, they will use it.

CB said that as an example, if they could test all the babies at their hospital for congenital hearing loss that would be a good thing.

PS acknowledged that the guidance will not include how alerts should be implemented in the EPR systems, but questioned whether we might instead develop a set of principles? Such as the professional obligation to do something with the alert when you see it.

AC explained that the projects focus is on the principles around who should see the alerts, how often they should see them etc. These are what professionals believe is meaningful. There is a professional obligation to do something with the alerts.

IT said that if a healthcare professional has overridden an alert, he thinks there should be a justification of this, which needs to follow down the chain. IT mentioned that point of prescribing clinical decision support tends to be implemented natively and you can end up with variable information, stating the importance of standardising how this is done with caution to creating something distinct from the other alerts clinicians have to pay attention to.

AC clarified that principles that would apply to all alerts are important.

JB remarked that allergy alerting seems very similar.

MT asked whether the team were looking at a whole genome? Implies a central place that holds genomic information.

LC asked about the timescales, whether is this going to become a big problem now or in ten years and whether it will affect the whole or a portion of the population.

RS responded that NHS England would have the answers to both MT and LC's questions. They have told the team that they are prioritising the drugs that have the strongest data at this point.

AC explained that initially they were told these tests would be available later this year. He asked the advisory board to send any reflects and comments to AM.

RS said there are lots of patient questions about communications, access and challenges of alerting this information.

RS explained the next steps with a second focus group in November, including scenarios to test the proposed guidance.

Action: AM to circulate scenarios to advisory board for feedback.

RS spoke about consequences, whether this framework can be applied to alerts over and above the medicine's pathway? Whether it can be aligned to the spine? Can it help support the thinking of how genomic information can be accessed broadly to achieve dissemination to allow the genome to be actioned? How to engage NICE in eventual guidance? Can we publish our collaborative international findings as an example of how to begin to embed genomics in the health care record?

IC said that epidemiological analysis shows that alerts that predict what happens people will ignore.

AC thanked everyone and explained that the slides were previously circulated.

Data Migration event

MA BCS is holding an event about data migration in the NHS on 15th November to consider he implications of large-scale data migration programmes and how NHS practice compares with other industries. Highly relevant to pathology work and SNOMED codes.

Action: AM to send invitation. Please follow the link for more information and to register: https://www.bcs.org/events/2019/november/data-migration-a-health-check/

6. Artificial Intelligence in healthcare

JW provided the advisory board with an introduction to artificial intelligence in healthcare discussing the positives and negatives and promoting harnessing the best of both artificial and human intelligence.

JW explained that software to support human decision making has been in development since the fifties, machine learning is the focus currently. JW went through a number of examples of artificial intelligence in healthcare such as surgical robots and asthma inhalers with Bluetooth.

JW detailed a number is issues with usability, automation bias – following advise even if it is wrong, alert fatigue, the clinical impact, transparency – black boxes, privacy and safety concerns.

JW said that we need to think about what health professionals need to know about AI and how to access the quality of these tools and detect errors. How can health and care professionals constructively get involved with procurement? Developers need to understand the psychological aspect of advice giving.

MA said that we need to be mindful that the buzz around AI currently has led to some misuse of the term within healthcare.

IC asked how far in the future machine learning is? Integrated care systems biometrics are being processed automatically.

JW explained that MHRA says that evolving systems can't get a CE mark, this would require daily validation.

MW spoke about the example of the use of AI in imaging with skin legions that had a high compliance with what clinicians said. However, the images that were presented with a ruler next to them were more likely to be melanoma.

MW said that it is likely these systems will become more accurate than a clinician in the long term due to follow up loops.

DW spoke about the opportunities of big data for intelligence and applying this back to service and in influences commissioning decisions

RS told us he believes there needs to be a caution, is effort being displaced somewhere else by investing in these systems e.g chatbots – likely increase in a&e attendances.

MT mentioned that Walmart is able to detect whether or not a woman is pregnant using indices that we wouldn't normally recognise – a potential very useful tool. How are we going to use similar very useful technologies?

JW said the argument is mass surveillance v risks to privacy for individuals, something that we should be engaging in public debate over.

PS mentioned his workshop on trust in clinical decision support on 5th December. If you would like to take part, please email: philip.scott@port.ac.uk.

7. Accreditation

MO and PS presented the work undertaken to date on Digital Health Technologies (DHTs) and on Pre-primary care accreditation frameworks and asked for feedback from members.

MO provided some context to the projects explaining that 4 million healthcare apps are downloaded every day and that we spend 99.9% of our time on their own, the uptake of apps is built into national strategy. We know members get asked to endorse apps but there are not necessarily consistent ways for you to do that. We are looking to develop an accreditation framework so that patients and clinicians can have some confidence in using and recommending apps.

NB said that there is an unlimited amount of general app advise, the quality of which varies. As a GP there is a definite need for patients and clinicians to co-produce their care but there are inevitable issues to seeking medical or other clinical advice too early, too late or inappropriately not at all. A sound, clinically rich, accreditation framework is important.

EW explained that from a consumer perspective she finds the multitude of apps confusing and has to rely on consumer recommendations. A trustworthy accreditation framework will allow patients to get much more involving in their own care.

MO affirmed that there are lots of different frameworks out there with MHRA regulations, PHE criteria, NICE framework, NHS app library Digital Assessment Questions (DAQs) as well as commercial reviewers such an Orcha. We want to help by bringing some of these things together.

LS introduced the Digital Health Technologies accreditation framework project, NHSX has asked PRSB to look at the baseline standard as the current system has not been able to accredit apps quickly enough.

MO introduced the pre-primary care concept which includes everything that someone does to look after themselves without going to a healthcare professional, the focus being on keeping people out of hospital and encouraging self-care. He explained that PRSB are looking at developing an accreditation framework for these apps.

PS explained that most frameworks classify by risk, generally with four levels and mainly self-assessed and suggested that perhaps independent third party is necessary to carry out these assessments.

PS said that the NICE framework has been an excellent starting point and they are mapping the NHS DAQs.

KS said that this seems very health orientated but this should be integrated working.

There were discussions in small groups about the projects, feedback below:

The key themes which emerged were:

- Broad agreement that the Quality Domains appear correct
- Input to design, testing and sign off from health and social care professionals and end users is essential.
- Products classified as higher risk require an independent audit
- Tension between encouraging innovation and taking steps to assure that apps are safe and effective and can be trusted. Our work needs to consider how to strike the right balance.

Some key concerns were raised:

- Delayed referrals due to false reassurance/ self-care is a key concern
- Unnecessary referrals due to risk aversion; apps should include metrics on referrals / outcomes
- If something does go wrong, who is legally responsible?
- Will post market surveillance be mandated? How are issues tracked and fixed?
- The process by which professionals recommend DHTs, particularly if large numbers are accredited, needs to be defined. Is there a requirement for training in use/advice/ advocacy (NB considered important to pick up with colleges)?

Trust

- Would trust a 'kite mark' by a recognised medical body
- Clinical and end user input to design, testing and sign off

Pre-primary Care Definition

- Pre-primary care definition is confusing; this is about self-care management

Chat Log Comments

CA

- This is very timely as this is something we are now considering at the BDA in relation to diet and lifestyle apps. I am starting to receive more questions from members in terms of what apps to use, and what is ok, and what is not. I advise on professional judgement. It seems there is an appetite for people to simply be reassured. If an app has been through a process and has an official stamp of improvement, this would remove hesitance of clinicians recommending apps.
- I feel there is a hesitancy here at the moment as those less familiar with technology, have less trust in technology. Accreditation/endorsement installs trust.
- On discussion with dietetic colleagues recently, we agreed that apps providing advice to a specific health condition should be advised as part of a clinical pathway with support from a clinician. There is hesitancy that having NHS recommended apps for health conditions could lead to individual's self diagnosing/self managing when they should be seeking support. Alternatively, a disclaimer should be recommended to be integrated into the app to make it clear individuals should seek support from their GP/AHP if they are choosing to use the app.
- From a citizen perspective, if I was recommended an app via the NHS or a health professional, I would trust it. This places a responsibility on us to get this right.
- All domains currently listed sound suitable. Clinical risk could be an additional consideration

- We would be happiest knowing full details of the process to be able to endorse it. Also if dietitians could sit as part of the accreditation process for nutrition/diet related apps this would be most ideal. Dietitians are skilled assessing for clinical risk when implementing a diet/nutrition related app. Mental health can be affected if diet is talked about in isolation, often it is just a part of a bigger picture. Therefore, digital lifestyle interventions about diet should be approached with expert opinion, with a holistic overview of the purpose of the app and how it would sit as part of a clinical pathway.
- To echo what Suzy said, my comments were on behalf of my experiences and conversations with our members as we have been discussing this in a great deal recently. I plan to encourage members to join the upcoming webinar.

SE

- A number of OTs have been in touch about Apps and whilst I am beginning to have a sense of the way in which they are assessing the appropriateness of specific apps for their citizens, I'm not sure that a) this is a scalable approach because these members are already trained as clinical safety officers and b) pre-primary care feels like a completely different area of work . I guess if the pre-primary care examples were more focused on occupations e.g. keeping people at work, or perhaps apps that support people with assessing their home for telecare solutions then I might feel more comfortable accrediting a process that supports citizens with engaging in occupations that may supports them not to access health and care services.

MO told members that there would be a series of webinars starting on 7th November and that the framework will be viewable on an online consultation platform open to all for comment during November – December.

MA commented saying that the British Computer Society support the PRSB and the work done to date (standards) however this new area raises some questions. He asked whether we have given any thought to badging this under a subsidiary?

8. Work programme update

MO explained that we are documenting **our process** for internal and external use and reference.

LF spoke about **HDRUK** who have joined PRSB as a member. HDRUK promote high quality datasets with common standards to allow machine readability and semantic interoperability. Data sets for various uses is coming up all the time.

LC said that it would be useful for the Medical Research Council to use information standards that have been designed for clinical use, as it will increase the number of studies that use a standardised format.

HF updated the advisory board on the ongoing '**doctors download'** project. PRSB are working with the Academy of Medical Royal Colleges and Health Education England to expose the big challenges in the medical community with digital experience and expectations. HF explained ambitions to build an action plan to inform policy from the discussion. The first phase of the consultation took place over the summer, just under 400 people responded. Respondents had a clear desire to be involved in decision making regarding technology and felt that they had responsibility for driving up quality. Other popular motions were simplifying the technology, supporting education and training, fixing

the basics, communicating the decision and investing in change. We will be asking people to validate the preliminary findings soon.

LF mentioned that she expects that although the consultation was about Doctors, that allot of the themes will be quite common and wondered whether there would be opportunities for others to be involved?

HF said that we will try and find a way.

HF then introduced a recent project titled '**Digitising Lloyd George records'**, PRSB consulted nationally with nearly 1200 responses, with good feedback from primary care and patients. The findings revealed huge support for this, patients were keen that the records were digitised, and that the information was made available to them (they would have to do a subject access request). Although people were keen to see their records, they recognised the cost of this in time and resource to the system. GP practises and primary care was also supportive of this, the responses indicated that there is clearly some more work to be done to fully summarise the paper records and the problems regarding new-borns still getting Lloyd George envelopes whether or not they are used.

IT mentioned that in Scotland Lloyd George envelopes are not created for babies any longer and that the records stopped being used twenty years ago and some colleagues have released the space that was previously taken up with records. IT suggested that if you can't shred the paper documents until you have reliable GP to GP transfer as to do so would be clinically unsafe, then it might take a long time to realise the benefits of the project.

JC confirmed that it is the same in Northern Ireland and Wales as it is in Scotland.

SC asked whether there were any comments about indexing and tagging?

HF responded telling SC that there were lots of comments about readability of handwritten notes and a variety of views about what to do about that. Most patients wanted to have the entire record whether it is legible or not. The issue about scanned records becoming degraded came up, and it is recognised that the technical aspects are quite complicated. 20% of those GP to GP transfers fail, the need for a national resource and funding was a widely held view.

HF concluded, informing the group that the report has been drafted and will soon be published.

LF introduced an exciting NHS Digital **social care pathfinders** programme to encourage innovation in social care. Of the 26 first phase applications, a shorter list will get more funding to develop and actualise their proposals. How could we make the join up in different Ensure these projects within localities are joined up for use across the country is important and requires building engagement and alignment with national standards

KS explained that there hasn't been much publicity as this has been a discovery period. It is likely 12-16 projects will go forward. There is a good opportunity for PRSB to get involved in this as things have to work on a national level.

MO told the advisory board that we are taking the **maternity standard** through the ISN process. Some changes made misaligned with our standards, resulting in a full day workshop where we worked through a huge number of the issues, resulting in a compromise which allows the maternity standard to be published as an ISN. We will be updating the standard so that it is aligned with datasets, professional and patient involvement guidelines and tech specifications. We are also in

discussion with NHS Digital to create an end to end model in the development process, NHSX have a big role to play here also.

MO spoke about our role **supporting implementation of the core information standard.** MO explained that we are setting up support infrastructure so the different architects can speak to each other, and we are in the process of being commissioned for this.

MO said that we are also **supporting the national record locator service**, which is a document type-field which will use the PRSB document naming standard and then various standards to gather metadata and pool this information.

MO then discussed the work PRSB are doing to set up governance for SNOMED code lists and the removal of redundant codes. PRSB have submitted two bids for **pathology standards** on principles and a roadmap for implementation.

Actions from Advisory Board meeting – 24th October 2019

Date	Agenda Item	Action	By Whom	Status/Comments
24/10/19	2. Minutes, actions of the last meeting and matters arising	Reconsider Anoop's previous request to propose test sites for the diagnoses recording guidance.	Advisory board	AM reminding members of request in post meeting briefing note 29/10.
24/10/19	4. Integrating Care Programme Product Visions	AM to put KS and GT in contact.	AM	Done – 24/10
24/10/19	4. Integrating Care Programme Product Visions	AM to put GT and SGS in contact.	AM	Done – 24/10
24/10/19	4. Integrating Care Programme Product Visions	LF will distribute a paper so the advisory board can consolidate a response to Gareth.	LF	Done – 8/11
24/10/19	5. Pharmacogenomics	AM to circulate scenarios to advisory board for feedback.	AM	Done – 29/10
24/10/19	5. Pharmacogenomics	AM to send invitation to BCS event.	AM	29/10