

[Simon:

Thank you, Julie and thank you everyone for staying for the afternoon. I think this is going to be the most interesting session. (Audience laughs) It's been a great morning so far. but I want to try and enthuse you about the idea of digital consent. I've given my declarations in the past already.

So this is the surgical patient journey, I'm a surgeon, so that's my area that I'm interested in. And this is perhaps your sort of high volume, low complexity type of surgery. As I say, if you're a medic, you will have your own patient pathways and journeys that your patients will go through. So our referrals come from primary care and they come into our electronic referral system and then there may or there may not at the moment, be some sort of communication with the patient prior to them attending at the clinic. I don't mean the clinic letter. I mean something a bit more detailed, and we'll come back to that. And then we have the clinic visit, which is where the meaningful dialogue takes place, and then we decide we're going to list the patient for surgery.

Now, they may be consented at that point, or the consent might come a bit later on, but the process of consent, as we've already discussed, has already started. There may be a pre-op assessment for the bigger cases, there may be a prehabilitation and then of course the consent. And then the patient comes in eventually for their surgery. And then there is a follow-up process, and that follow-up may be a one off follow up, or it may be repeated follow-ups and there could be some patient reported outcome measures along the way.

I believe that we can digitalise most of this pathway, with two exceptions. I haven't worked out how to do the surgery digitally yet (audience chuckles) so that's a given, but I also think that the clinic visit is a key discussion, that single meaningful consultation or the meaningful dialogue, as the GMC guidelines calls it. And that's where really the discussion about the consent matters and what matters to the patient starts to take place, or you may well complete it at that point, although there's always time for the patient to have further conversations or change their mind at a later date.

But the rest of it, I'm trying to digitalise and this is the work that we started back in 2016, we appointed a research fellow who was appointed as a royal College of Surgeons of England research fellow, and she worked with EIDO, myself at NU, Nottingham University Hospitals, and this is the pathway that we came up for gall stones. So the patient was referred by the GP. We know they've got gall stones because the ultrasound scan shows it and we were sending them an EIDO information leaflet in the post. But in the new system we had a digital platform which was called 'About my health', sorry 'About my op' and that was, the patient was invited to take part in that to log in and to learn and share information, this two way virtual sharing of information. So that when the patient actually came to the clinic, they already knew all about Gallstones. They'd had had all the information and they'd answered questions about their health. And so what we call a patient health and understanding report was there. I was able just to quickly review that, see that everything was in order for them to proceed with surgery. They had their questions ready for me about the consent side of it and so the consent took place.

The patient continued to have access to the platform and 48 hours before their surgery, we sent them information for after their operation so that they could print it out and have it to hand for when they got home. Part of that was what to look out for if there was a complication of laparoscopic surgery, there was an MPSA alert a few years ago because a number of patients were having laparoscopic surgery, and of course, they were going home and their complication developed once they were at home. And there was a lot of disasters around that. So we provide that what to look out for after laparoscopic surgery as part of our information. and the patient then was invited to do an online follow up and they also were invited to an electronic PROMs, patient reported outcome measures, at 30 days, three months and at six months.

So this is the platform that we set up. They chose their operation. They got a little introductory video from me, looking a bit younger than I do today and they were answering questions about their symptoms and about their general health. We taught them about the operation and the journey, all the consent information of what the operation involves, and we actually tested their knowledge of the consent process. So how well did they understand what they were reading? They weren't difficult questions,

but nevertheless, you had to read the information to understand, or to be able to answer the question.

We have animations as we've already mentioned and we have a nice one for Lap-chole, and this was the patient health and understanding report that came out. So their current symptoms, I don't expect you to be able to read that but there's a section on their current symptoms and I could just quickly review that and see, 'well actually they've been completely asymptomatic. Is it right that we should take their gallbladder out?' Or actually, 'you're getting plenty of symptoms, Yes, we should.'

In information about their quality their ability to exercise and lifestyle characteristics and then the questions that they answered about the consent, and how many they scored out of 10. And there's also a section for the patient to write in questions that they wanted their surgeon to address. And so they were able to and ask those questions that I could answer when I saw them in clinic. And that really did make the consent consultation, not that single meaningful consultation much more efficient. It was a research study, and there were a few technical issues around the platform that we designed in terms of login. And we ended up with just over 200 patients completing a patient health and understanding report and proceeding onto laparoscopic cholecystectomy. And you can see on the right there, the seven day follow-up numbers and the PROMs numbers, what became apparent is once a patient better from their gallstones operation, they're not really interested in filling out questionnaires after a while. So the numbers were dropping off quite a lot.

I'm going to show you some further data on digital follow-up in a minute, but this this was the data on the 98 patients who underwent digital follow-up, and we compared it with a telephone follow-up, which is what we had been doing beforehand. And suffice it to say, we didn't miss any complications at seven days using the digital process. There were a few patients who you know, one or two patients that had a bile leak or something like that that would actually present to the surgical triage unit quite appropriately before day seven. And there were the odd patient had developed complications after day seven, but we picked up all those issues within the first seven days apart, from those patients who obviously had to come in as an emergency. There was a lower DNA, did not

attend, rate for the digital follow-up compared to the telephone follow-up and it certainly saved time for our clinicians compared to the telephone follow up.

So this is the quality of life data from the electronic proms. And so any questionnaire technology can do this, and we used the Otago gallstones questionnaire, and the best health is the dot in the middle. So the patients, pre-op in green, didn't have very good health and then they had their operation and then gradually it got better up to six months after their operation. This is the other way round, so the worst health is in the middle. This is the SF 36, some of you will have used that in in other PROMs questionnaires. And again, the worst health was before your operation and it got better gradually after the operation.

And then this is the digital consent piece. So of the ten questions that we asked, the vast majority of patients got either eight, nine or ten questions correct. And there were very few that got six or less. On average, the median time that they spent reading the information and learning about it. Which because if you have a digital platform, you can actually measure that that was 17 minutes on average. And that's quite a good reassurance that the patient has engaged with the process. Now, you could argue whether the person who spent three minutes, and it's three to eighty-eight was the range, you could argue whether the person who spent three minutes was really engaging or not. We also asked for patient feedback, and one of the comments came back, which I really like, which is at the bottom there. 'The process makes me feel responsible for making a good decision about my own healthcare.' And I think that really does capture shared decision-making. And we've published that, the E-PROMs paper, the digital follow-up paper and the digital consent paper and they were all published in the World Journal of Surgery in the last two or three years. So they're there if you want to read them.

But let's move on. One of the things, so that was just for gallstones, and we couldn't actually reproduce that same platform for all operations. So EIDO took the decision to concentrate on getting digital consent for the for all surgical procedures. And we partner then with other digital providers who are coming on board, who are doing the questionnaire technology. And so I'm just going to talk a little bit about what's happening in Nottingham.

So the questionnaire technology company that we partner with is Isla Health, and they have a contract with Nottingham, so that's who we've used and they've been great. And we're just about to set up a, what we call, an electronic meet and greet. Of course, there are other providers and we've got VitalHub and Induction Health, who all have their patient portals that will I'm sure, be able to do this sort of thing as well. So with the E meet and greet, we can send a message to the patient by text and say yes, we've received your referral from the GP. You're likely to get an appointment in the next, however, many days or weeks, and here's some information for you to read about the condition that you have. And so we send an either information so that they come prepared and they come ready. But we can also do questionnaires with them so we can do a full pre-op questionnaire if we want, or we can just ask them the same sort of questions about symptoms like I showed you in our pilot study. And so again when the patient comes for that single meaning consultation in the clinic, then they're prepared and we as the clinicians can see from the output everything at a glance, rather than having to ask all of those questions.

One of the other things that we now have to do is that if we've got a patient on a long waiting list, we need to communicate with them every three months to say 'yes, you're still on our waiting list. Do you still want your operation? Has anything changed?' You know, if they've had a change in their health, they may suddenly not be right for an operation. And so there's a two-way communication and also we encourage them to, you know, get their BMI down and so forth during this time.

Now, pre-op assessment, there are digital providers of pre-op assessment and Isla do it in Nottingham. Synopsis also do it, who are here today, and there are other providers as well. I'm not going to talk about that other than to say, why would you bring someone all the way to the hospital to see a nurse to take a load of boxes to say, yes, you fit them well, and you're just on a medication for control of hypertension or whatever.

Why not do that digitally? Well, of course, there isn't a reason, and you can concentrate on that small group of patients who do have complex health problems and do need to see an anaesthetist, or do need to see a

pre-op nurse and have advice given. Prehabilitation is applicable, particularly for complex surgery and most of you will in your hospitals will have a prehabilitation service set up and that often is run by the physios and you get patients down to the gym. But you can do that sort of thing digitally online and there's a company called surgery Hero that we're working with in Nottingham, where you have a digital trainer who videos the patient and talks through the exercises and motivates them just like your personal trainer at the gym if you have one. And then, of course, the digital consent piece is where EIDO comes in.

Okay, so a little video of some of our animations and the information that we can share with patients. And Rob Hughes, who will be on one of the panels a bit later on, has been instrumental in developing that with the clinical team and the EIDO team. And part of that is consent at home. So obviously sharing the information with the patient at home is great because they can read it in their in their own home. But also getting that initial signature, yes, I do want to go ahead with this, does help when it comes to seeing them back at the clinic, but it doesn't replace that single meaningful consultation. I think that's important to emphasise. And the clinician signs as well, and then the end result is what looks like a written consent form with the signatures on, but all the risks and benefits and alternatives are already listed on there. So it does save time for the clinician in terms of the consent process, and it's all very legible, as opposed to some of our writing.

I'm just going to finally just show you the latest piece of work we've done on digital follow-up. This is with Isla Health again. And we initially had a medical student, and Jody Carvell one of our surgical care practitioners, has been working closely with myself on that. And we're looking here at just high volume low complexity procedures: lap-chole, inguinal hernia, Paraumbilical Hernia.

And we haven't been following those patients up. We'd just done PIFU, whatever that means, patient initiative follow up. Well actually, they weren't followed up is the answer. And actually, when we looked at the previous year, there was a significant readmission rate to the surgical triage unit of 11% for Lap-Chole and 6% for inguinal hernias. So it is significant and of course, it's quite costly when they come into that setting. So we looked at the value of digital follow-up in identifying

post-op complications in these high volume low complexity procedures. And we've studied it from January 1st 2024, and we are still running the study, but we stopped the data at 31st of August for this analysis. Patients were asked by phone message to consent for the study and they received EIDO information and safety netting advice. And then after seven days, they were asked to fill out a questionnaire and send in a photos of their wounds. The questionnaires we're all colour coded, so if there's a green code, if it's green, you know it's not a problem the patient's doing fine. If there's a red answer, well, you need to look at that and see if there's a problem, and yellow is in between. And so very quickly, the clinician in this case, Jody the surgical care practitioner, is able to review the output and see what the results were. And you can learn a lot from photographs and the photograph on your left is fine, post lap-chole incision and that's one of my Paraumbilical Hernias and that's on this side, clearly not quite right, and we need to sort that out. So you do get some useful information.

So we had 3222 patients who were invited to take part. This isn't a research trial now, this is the only follow up they're going to get. So we had 69, that's 21%, who did not consent and 245 who did consent and all of those pretty much answered the seven day questionnaire. We picked up seven, sorry, five surgical sight infections, nine bleeds, and the proportion of patients coming back to the surgical triage unit was very low. It was only five% sorry, so the outpatient clinic was only 5% and even less to the surgical triage unit, that was only 2.9%. And actually, when you compared that to the patients who didn't respond, who didn't consent for the study, there was 11% who came back in that in that group. So we think we're making a difference there. The patients are generally very satisfied with the outcome. We ask them to do an anonymous patient satisfaction survey, and they felt that they were very satisfied with the experience and they felt reassured. There's obviously one or two who would prefer to speak to a clinician face to face, but that really wasn't an option.

So our results show that digital follow-up is safe and feasible for high volume low complex general surgical patients, that digital follow-up is preferable to no follow-up at all due to clinical need, and there is a clinical need in some of these patients. And that most patients found it acceptable, convenient and reassuring. And so the digital follow-up

process certainly saves clinical time and we're gradually rolling it out across the trust for general surgery.

Just a final point, and this hasn't quite materialised yet, but if you've got digital triggers for all of the patient pathway, then you can very easily feed that into your governance pathway and we've got Radar Health as a partner with us and we're really impressed with the work that they've been doing. And they can use those data feeds to demonstrate where there's a problem and so they can pick up governance issues and highlight those before complaints occur. So I think that's really important.

So in conclusion, and I'm sorry I've gone a minute or two over time, but most of the patients' surgical journey can be digitised and that saves time and improves documentation, and that's a really important point. The information sharing can be done at every step of the way to improve the consent process and to improve patient safety. And the patients rather than just feeling a bit deserted and left out, which they did during COVID when we weren't seeing them face to face, this time, patients are actively involved in their healthcare journey and they feel an active partner. So I think the future is digital and I'm going to shut up there because I've gone over.

*[Julie:]*

Thank you, Simon. Do we have any questions? We've got a couple of minutes for questions.

*[Unnamed attendee:]*

Hi, yeah, just a couple of questions. What is this, a web based app? and is it compatible with standard EPRs?

*[Simon:]*

So the Isla Care app is what we use and that does give a feed into our digital health record. So they integrating with digital health records and EPRs, yeah.

*[A different unnamed attendee:]*

Yeah. I was just gonna ask what, would you do for patients who would require a transfusion?

*[Simon:*

Who would require a transfusion?

*[Same unnamed attendee:*

Yes. So you might have somebody with, your MS boss, you know routinely, so it might be routine surgery.

*[Simon:*

Yeah, so we would absolutely incorporate transfusion. In fact, I was talking to Cherry Chang, who's our transfusion lead at Nottingham, and we're talking about how we can incorporate blood transfusion where we anticipate blood transfusion. I think our view is that it should be a separate consent, separate to the operation with separate information, so that's where we're going on them. And obviously, for those who refuse a blood transfusion, that's a separate digital form as well.

*[Julie:*

Okay. One more question here.

*[Unnamed attendee:*

Thanks, Simon. your last point there about radar interfacing with governance applications within the trust. Was that with Datics? Was there some link forged, such that some specific flags would be assimilated into Datics, or what were they getting at?

*[Simon:*

Yeah so, Okay, so Radar are a different company to Datics. I'm not sure if I'm honest that our current Datics system can do that. Paul Johnson from Radar is here and he'll perhaps talk about that when in the session that he's involved in. That's a good point. One more question.

*[Unnamed attendee:*

Hi, have you incorporated paediatric consent into your platform?

*[Simon:*

Have we?

*[Same unnamed attendee:*

Paediatric consent.

*[Simon:*

Paediatric. So not yet, but absolutely this can be so the digital the EIDO digital consent platform has paediatric consent forms as part of it and we have paediatric surgical procedures, and we've been doing that for many years. So there's no reason why that can't work for paediatric patients as well, but we haven't we haven't tested it in Nottingham yet.

*[End of Transcript]*