Michael

Introducing Michael

The purpose of this narrative is to illustrate a clinical story that requires true software interoperability. We have had the narrative reviewed by a number of HCPs* and believe it to be a realistic reflection of this scenario. However, we do understand that this may not reflect regional differences. Please focus on the requirements for patients and data, moving across a number of care domains, rather than specifically how an individual service works.

Hello, I'm Michael. I'm 58 years old and I live alone in a small flat. I don't work and I don't go out much because I suffer from anxiety attacks. Sometimes people perceive my behaviour as being aggressive. Once someone called an ambulance and in A&E the staff called the police. It was so scary it made my anxiety worse and I became more agitated, this meant that I couldn't explain what was wrong, I just needed them to know.

My mental health team understand my challenges and told me they could use their computer to share information, they called it a flag. I have agreed that information may be shared about me. The last time I had an anxiety attack a passer-by thought I was having a fit and called an ambulance. Now that flag is available, the A&E team knew to call my mental health team. This is so important to me: I am less frightened of what happens when I have an anxiety attack and this makes me less anxious now.

I also suffer from diabetes that requires insulin treatment, and I now have a foot ulcer. A community nurse comes to see me at home twice a week. She cleans and dresses my ulcer and takes blood tests to check my blood sugar control. I'm not very good with taking my insulin, sometimes I forget. The practice nurse is happy to see me more often but I don't want to do this and hate going to the hospital clinic. That's where I saw Dr Singh, the diabetes consultant. He could see all the information from the different teams and was able to see that I was putting myself at risk by not following their advice. I did feel better that my care team were able to see all my difficulties joined up.

Now I go to the local pharmacy each week to discuss my medication compliance, this means I don't have to go to the hospital or practice so often. The district nurse still visits and she and the pharmacist share information with my GP practice and Dr Singh.

My nurse enrolled me on a telehealth scheme. I get texts to prompt me to eat at the right time and remind me to take my medication. It's great as it helps me look after myself better. I also have access to my health records and can see a list of my appointments, so there's no excuse for missing any now.

That's what made me decide to stop drinking. I thought if everyone was helping me I should do something myself. I only drink at night and do put water in my whisky. I never told the truth to the doctors and Mrs Banerjee, my psychiatric nurse.

I even fell out with my family as they said it was too much, I just didn't realise how bad it was. I was fine the first two nights but then I started to sweat and felt terrible, my heart was racing and I felt disorientated. It was late so I rang the out of hours' service.

I remember talking to the out of hours GP but then it all went black. They told me afterwards that I'd had a seizure bought on by withdrawal from alcohol. I vaguely remember being in an ambulance and then at A&E, but it was a couple of days before I was aware enough to know I was on a ward. It was a good job they had their computers as I couldn't tell them I had diabetes and needed insulin, or that I was taking tablets for my anxiety.

I'm glad I gave permission to share my data, as that helped them choose the right treatment and meant that Dr Lowndes in the outpatient clinic knew exactly what had happened when I was in hospital. I didn't have to remember all the details – it's so complicated anyway!

Now I'm home and feeling better, it's great as I can use my phone to help me cope. As well as the text alerts, which remind me to eat regularly and take my medication, now I'm less anxious and alcohol free I am able to use other apps. I record my weight and blood sugars regularly. This is helping me with my diabetes and makes me feel more in control of my own health. It also means I need fewer appointments; my GP has pointed out my self-esteem has improved too.

I've managed to stay off alcohol with the support of Dr Lowndes, my GP, and my mental health team. I have another app which links me into the liver team and supports my recovery. In fact, through the app I've even enrolled in a study that will help people prevent liver disease in future.

I order prescriptions online and don't have to go to the GP practice. I pick them up from the local pharmacy and even the pharmacist can see information I enter on my phone; I'm proud to say she was really pleased with me that I'm taking my medication properly.

I lost touch with my family, probably because they could see how much I was drinking. Now my sister visits after work on Wednesdays and makes sure I have the right food in the house. I've decided to share my on-line records with her and, now she can see I'm not drinking, she's able to support me in staying healthy and staying out of hospital. This has helped rebuild our trust. My sister is also helping me talk to my social worker to see if we can find more suitable accommodation, so I'll feel less isolated.

Mrs. Banerjee
Mental Health

Dr Singh
Diabetes MDT

Jacky
Ward Sister

Dr Lowndes
Liver Specialist

Meet the team

Hello, I'm **Mrs Banerjee, I am the lead community psychiatric nurse (CPN)**, working with Dr James our Community Mental Health Team Psychiatrist. We've been working with Michael since he was a teenager, helping him to understand and manage his anxiety attacks. There have been times when Michael has been drug free, however, his partner recently left him, he lost his job and the stress has exacerbated his condition. For the past four years Michael has been taking 150 MG Venlafaxine each day.

Michael's anxiety attacks often make him agitated and resulted in a visit to A&E and the police being called. We want to prevent this. With his consent, I put a flag (special patient note) on Michael's record. This flag will appear on all Michael's associated records, meaning all teams will be alerted to his mental health issues and our team's contact details.

Hello, I'm **Dr Singh, I am an endocrinologist specialising in Diabetes**, working in the hospital Out Patient Department.

Working closely with the primary care team, I am able to see the data they have collected regarding Michael, along with the history from our clinics and the community pharmacy. All the data merges to give me the information I require in graphical format.

I can see a correlation between Michael's weight, blood sugar levels, insulin prescriptions, HBA1c and care encounters. This visual view containing information gathered by the primary, community; secondary care and the patient is essential to me as I can see – at a glance - the impact on Michael's diabetes in relation to changes in his medication, weight or mental health.

Michael needs help to keep to his medication regime. We sent an electronic referral to the community pharmacy, giving them permission to access Michael's prescribing history and the graphical view of the key indicators. They know to alert us of any negative changes.

We enrolled Michael on our telehealth scheme. It is a simple, yet successful tool using SMS text messaging to remind patients to eat and medicate routinely. Using their app, we are also able to receive data from Michael in relation to his sugar levels and weight.

Hello, I am **Jacky, I am a ward sister on an Acute Medical Unit**. To update our consultant. I need to create a record. Michael is often unable to provide answers to our questions about his history. I search to see who else in involved in his care and find the names of his GP, pharmacy, mental health and community teams and Dr Singh's diabetic clinic. I quickly send an alert to each of them to let them know Michael is with us and will be here for a few days.

With access to these records I am able to pull data into our system to populate the Medical Admission Unit record. Including demographic details and information relating to Michael's diabetes record; treatment for his anxiety; data regarding his encounter history with the Out of Hours service; his admissions for seizures; and details of examinations and investigation findings.

When the consultant arrives I am able to tell him that Michael is a 58-year-old man, who lives alone, has poorly managed diabetes and is taking insulin. His HBA1c has recently improved due to MDT intervention. He suffers from anxiety and took 150 mg of Venlafaxine 8 hours ago. He stopped drinking suddenly, and is showing signs of alcohol withdrawal. In A&E he had a CT scan which shows no sign of stroke. Fully informed the consultant is able to implement our protocol.

Hello, I am **Dr Lowndes, a Liver disease specialist**. I see from his inpatient records that Michael had a psychiatric review. I can search the system to see who else is involved in his care and see that Michael is a patient of Mrs Banerjee. I send a task to ensure my team engage with the community mental health team to support us in keeping Michael alcohol free. I also see that that mental health team have been prescribing 150 MG Venlafaxine and that Michael has diabetes. Once I have assessed him I may need Michael to see our comorbidity medicines management team. Our system will alert all the other teams about my prescribing choices.

I pull up Michael's investigations report. This gives me a correlated view of his tests and results from primary; community and acute care. I am particularly interested in his LFTs over time and his platelet count. Michael has had a number of blood tests to monitor his diabetes over the past few years and I can see these together with the recent tests done in A&E and in MAU. The ultrasound that was requested on the MAU in light of his abnormal liver function has been done since discharge and this shows "mild hepatomegaly with no signs of advanced liver disease."

Michael has not been drinking since discharge and this consultation is a good opportunity to discuss the physical effects of alcohol on Michael's liver and the benefits he has already experienced of stopping drinking. Nutrition is very important in people with chronic alcohol use and in addition to dietary advice, I prescribe thiamine and Vitamin B supplementation. I repeat his blood tests and arrange to see Michael again for further review.

In the meantime, Michael will be reviewed by the alcohol liaison team, who will make arrangements for him to visit a community alcohol service. I expect him to continue to improve as he remains abstinent and hope to be able to discharge him back to his nominated GP, to co-ordinate his Michael's ongoing care. I enroll him in the telehealth scheme so that our plan is shared more effectively with GP, diabetic, mental health and alcohol teams.

* The story has been validated by 11 GPs; two Consultant Psychiatrists; a Consultant in Hepatology; a Ward Manager with experience of alcohol withdrawal and a Chief Information Officer.