
Revolve Comics
DIABETES:
SECRET WARDS

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REVOLVE COMICS

Hello again friends. Well, here we are again, with a new diabetes adventure. This time we are looking to raise the profile of diabetes care in hospital.

You might be wondering why does this matter? If you ask people with diabetes, it is not uncommon to hear about their worries, fears, of the care they may receive in hospital and the disturbing experience of those who have experienced inpatient diabetes care which has been anything but pleasant. It should be remembered that most of them are not admitted for reasons directly linked to diabetes (such as Diabetic ketoacidosis or hypoglycaemia), but it could be for a routine operation or an unexpected illness. In all cases, there is the potential for diabetes to become unstable, regardless of the reason for admission, but also because of certain hospital-based medications or treatments.

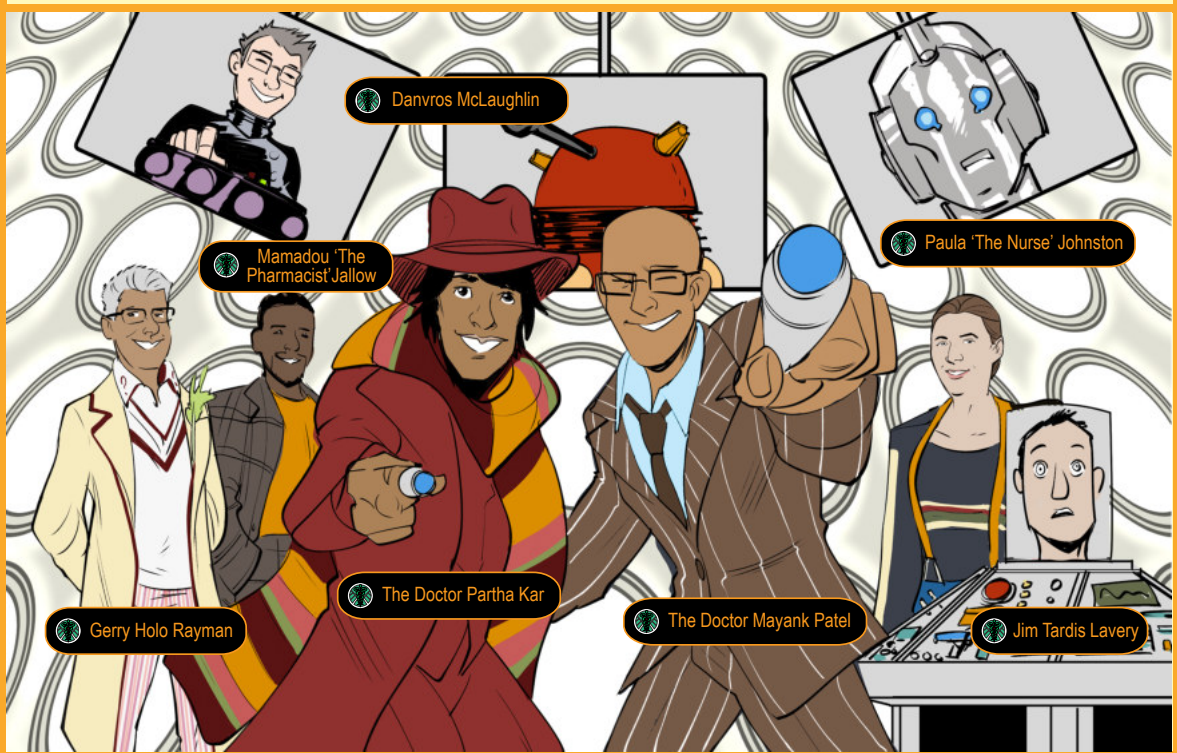
Whilst many hospitals do have Specialist Diabetes Teams on hand to directly support diabetes care, there remain many that do not. That said, even for those that do, to take inspiration from a recent movie title, these teams cannot do or be 'Everything, Everywhere, All at Once...'. It is not possible for all patients with diabetes in hospital to be under the direct care of a Specialist Diabetes Team. Hence in the way that wider Healthcare Professional teams support all their patients on the wards, it is vital that they also feel empowered and conifident in supporting and delivering the basics of diabetes care themselves, depending on the needs of their patients. Often the basic support that is needed involves listening to patients concerns and acting on them, as well as following local diabetes guidance that should be in place.

National work has been undertaken and continues, aiming to ensure that hospitals 'Get It Right First Time', in their processes used to help patients with diabetes have a good hospital experience. Much is still to be done to ensure safety for those living with diabetes being admitted to hospitals is as good as it possibly can be.

This comic book aims to highlight some common diabetes related situations that can occur in hospital, with suggestions on what all Healthcare Professionals could do to manage them.

We would like to dedicate this issue to all Healthcare Professionals who support inpatient diabetes care (thank you!) and say thank you to our guest reviewers. We hope you enjoy this adventure, which is literally 'out of this world'…(but at the same time…is not?!)

Happy Reading!!

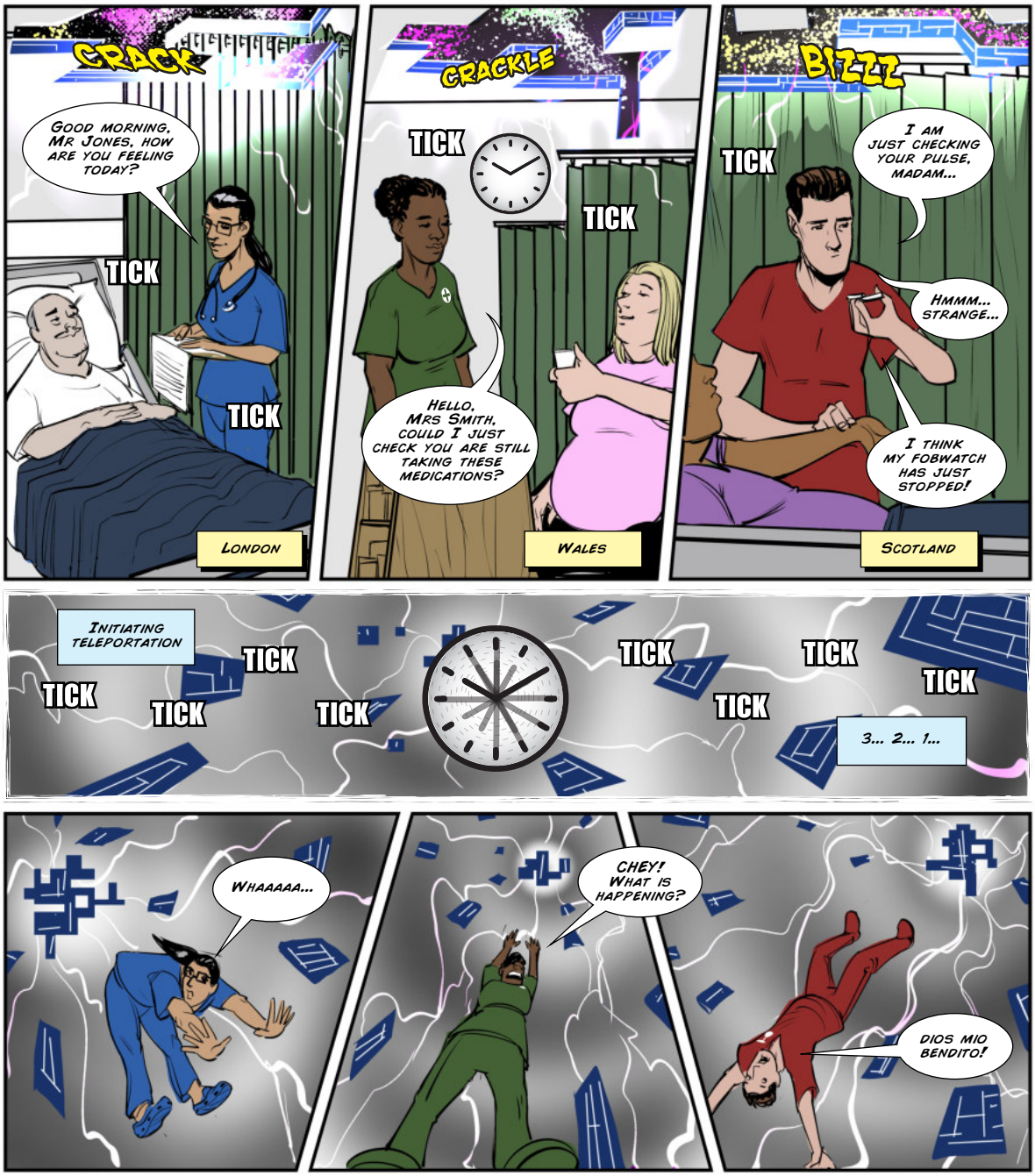


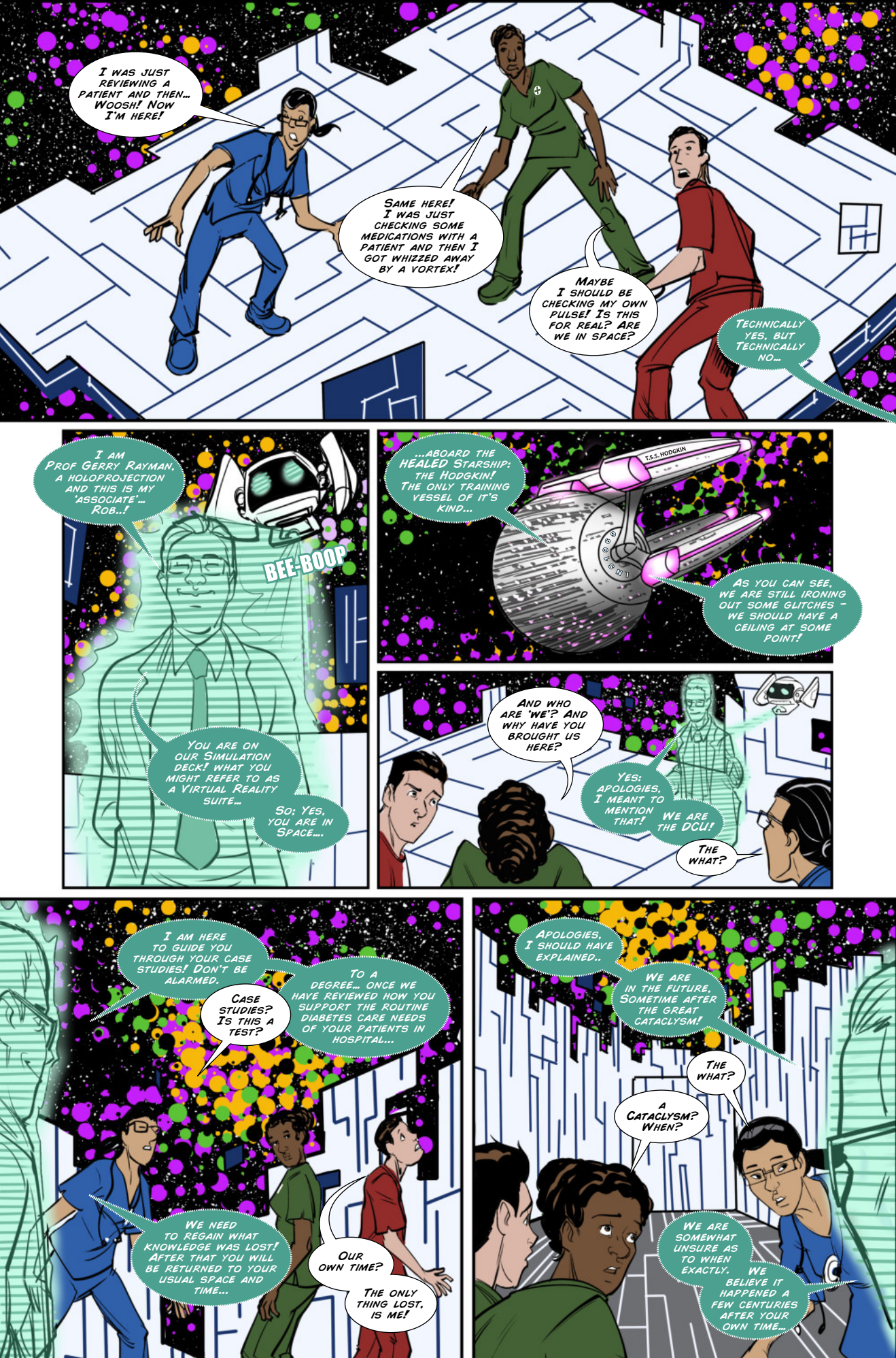
NHS England

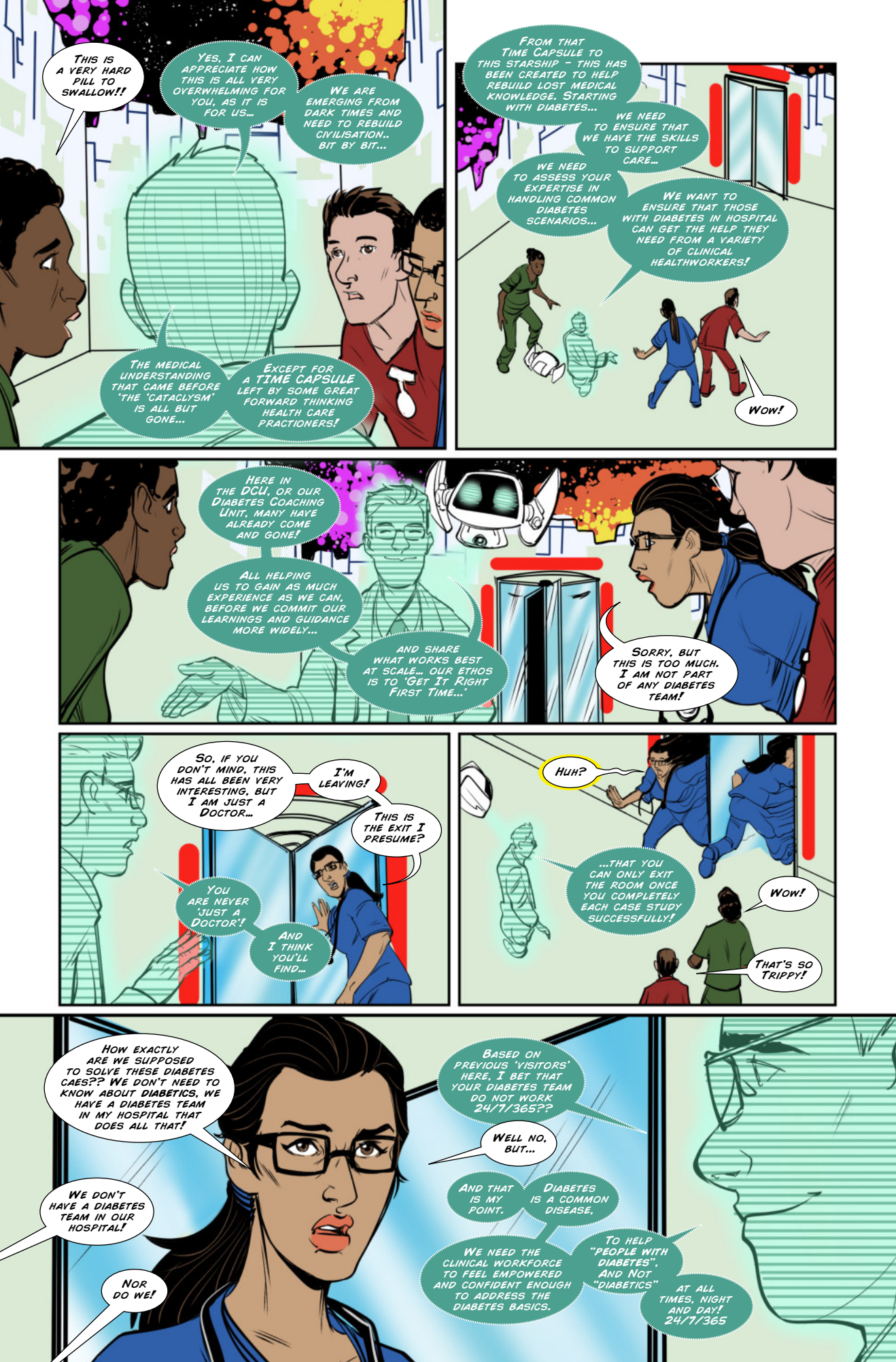
...and a special thank you for the help and support of **NHS England, Portsmouth Hospitals NHS Trust** and **University Hospital Southampton NHS Foundation trust.**

We hope you enjoy!

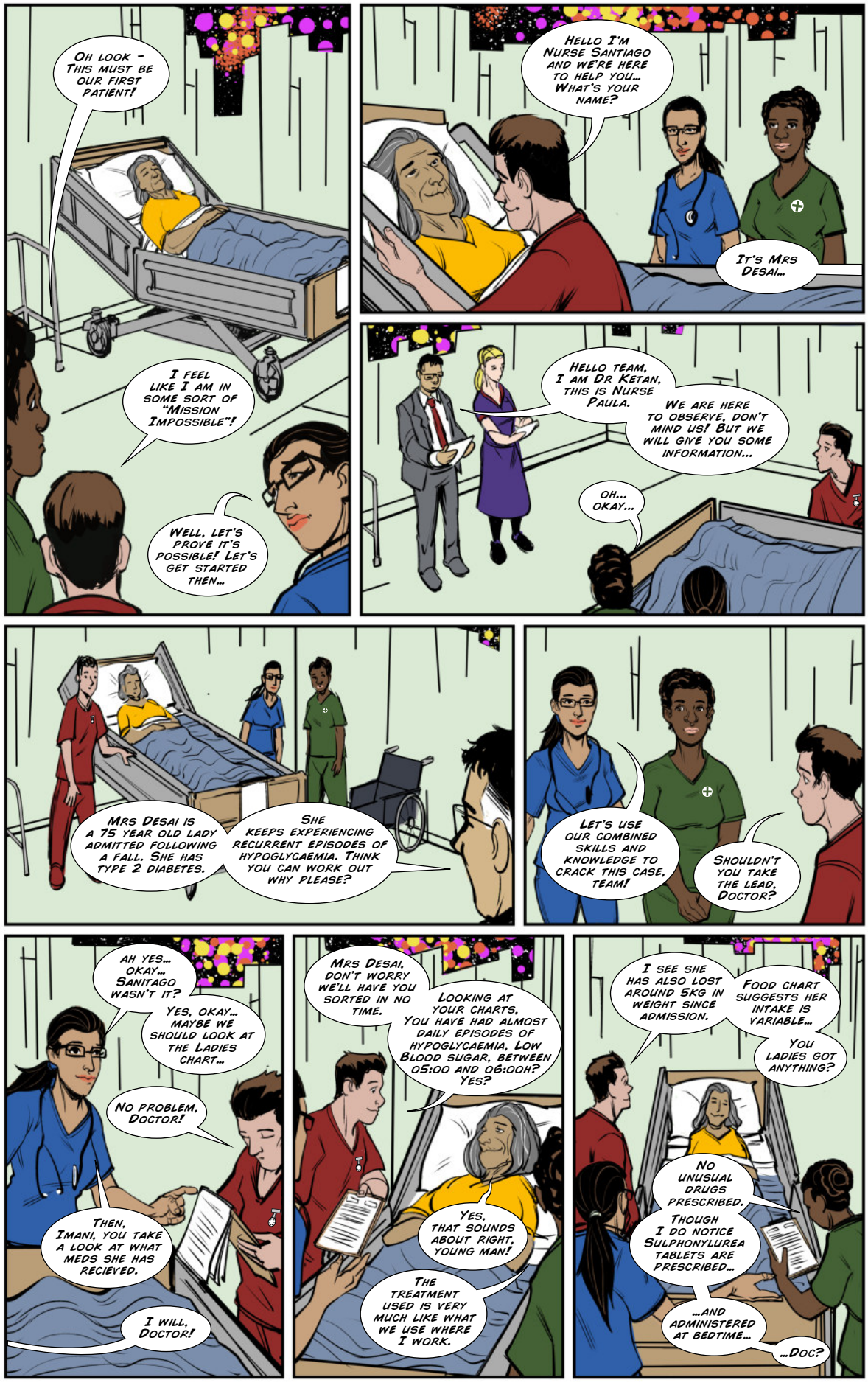
Partha and Mayank

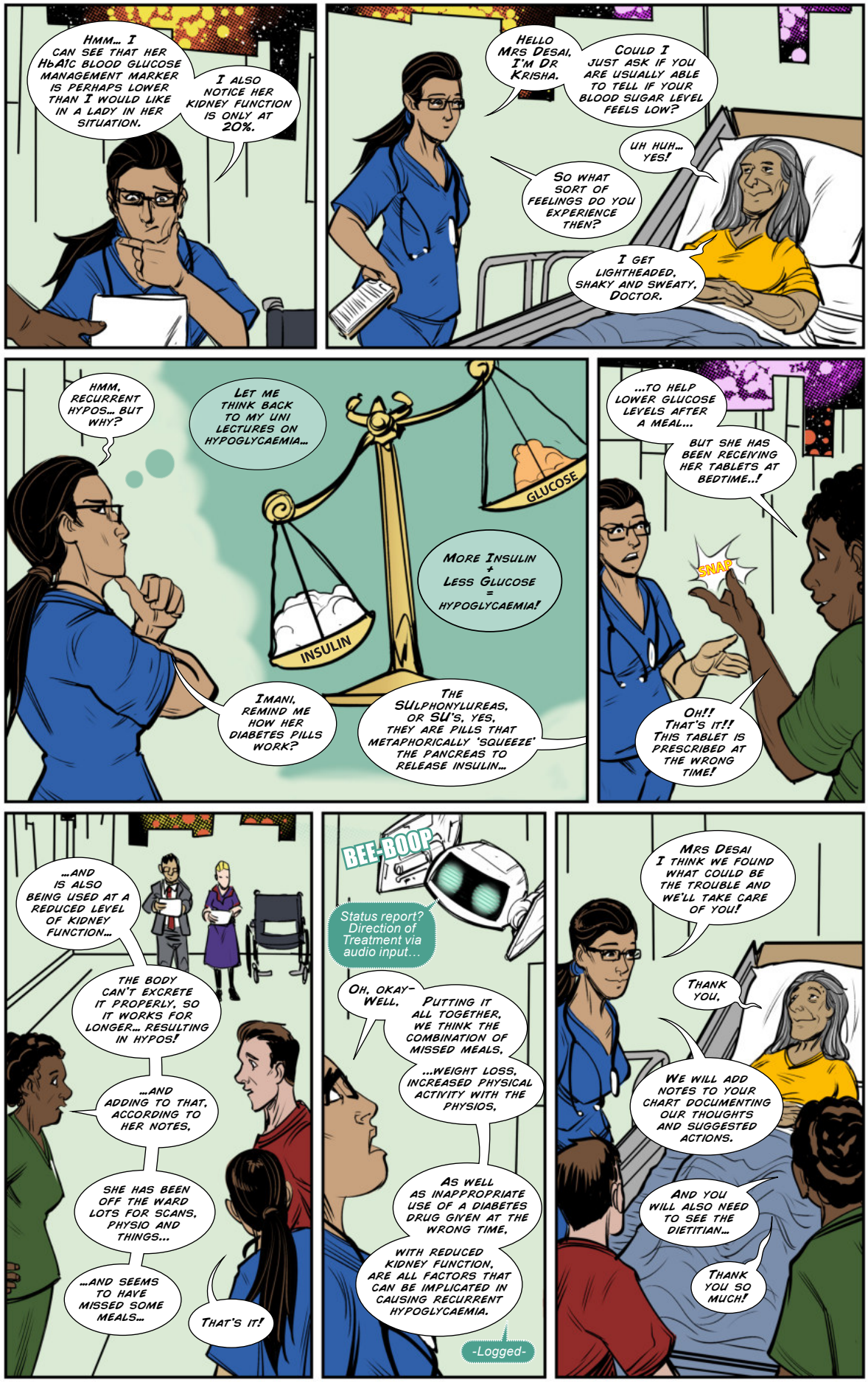

CRACK
Good morning, Mr Jones, how are you feeling today?
TICK
TICK
London
CRACKLE
TICK
TICK
Hello, Mrs Smith, could I just check you are still taking these medications?
Wales
BIZZZ
TICK
I am just checking your pulse, madam...
Hmmm... strange...
I think my fobwatch has just stopped!
Scotland
Initiating teleportation
TICK
TICK
TICK
TICK
TICK
TICK
TICK
TICK
3... 2... 1...
Whaaaaa...
CHEY! What is happening?
Dios mio bendito!
What? What's going on?
Who are you guys?
And where are we?


I was just reviewing a patient and then... Woosh! Now I'm here!
Same here! I was just checking some medications with a patient and then I got whizzed away by a vortex!
Maybe I should be checking my own pulse! Is this for real? Are we in space?
Technically yes, but Technically no...
I am Prof Gerry Rayman, a holoprojection and this is my 'associate'... Rob..!
BEE-BOOP
You are on our Simulation deck! what you might refer to as a Virtual Reality suite...
So: Yes, you are in Space....
...aboard the HEALED Starship: the Hodgkin! The only training vessel of it's kind...
T.S.S. HODGKIN
As you can see, we are still ironing out some glitches - we should have a ceiling at some point!
And who are 'we'? And why have you brought us here?
Yes: apologies, I meant to mention that!
We are the DCU!
The what?
I am here to guide you through your case studies! Don't be alarmed.
Case studies? Is this a test?
To a degree... once we have reviewed how you support the routine diabetes care needs of your patients in hospital...
We need to regain what knowledge was lost! After that you will be returned to your usual space and time...
Our own time?
The only thing lost, is me!
Apologies, I should have explained..
We are in the future. Sometime after the great cataclysm!
The what?
A Cataclysm? When?
We are somewhat unsure as to when exactly.
We believe it happened a few centuries after your own time...

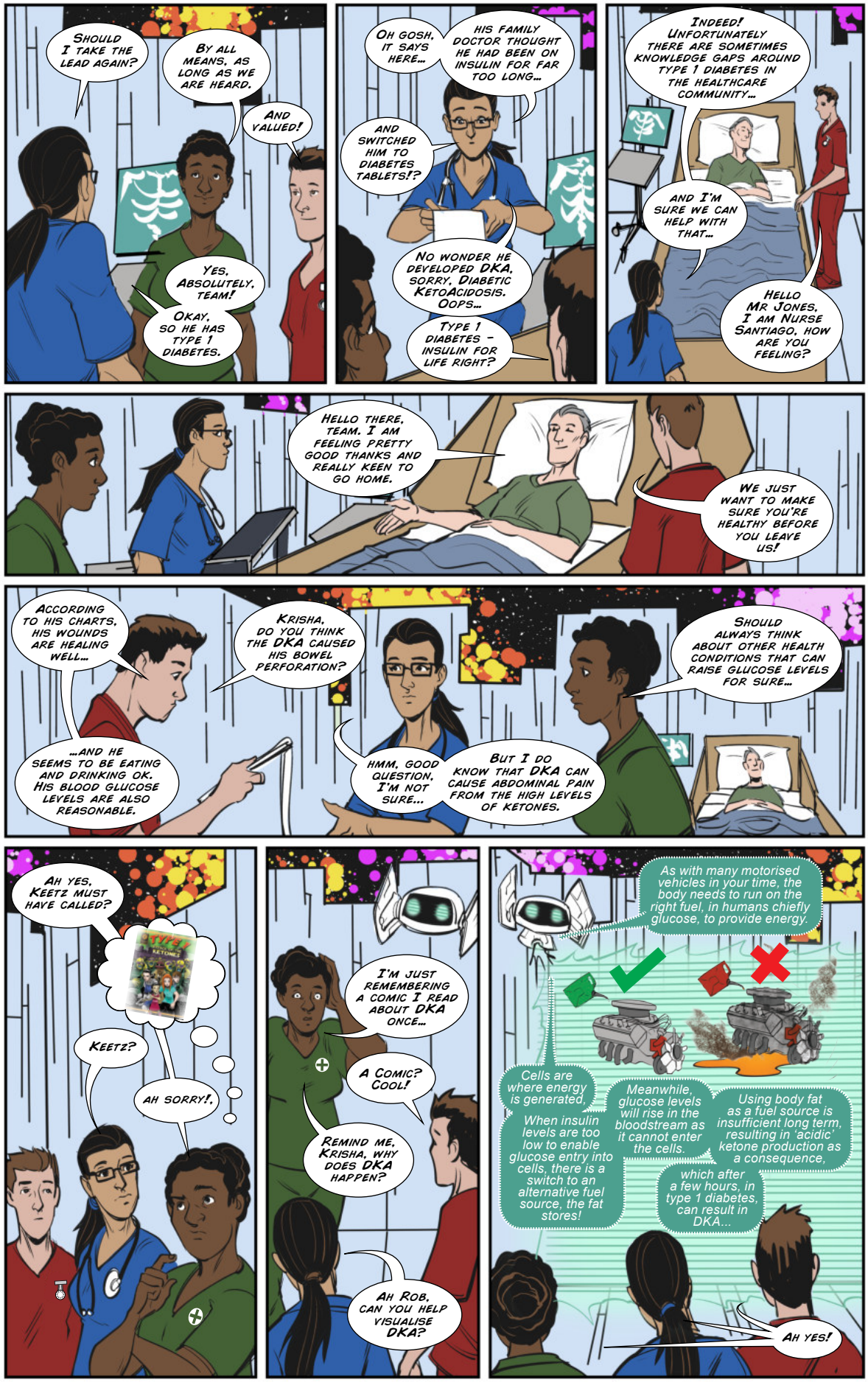

This is a very hard pill to swallow!!
Yes, I can appreciate how this is all very overwhelming for you, as it is for us...
We are emerging from dark times and need to rebuild civilisation.. bit by bit...
The medical understanding that came before 'the 'cataclysm' is all but gone...
Except for a TIME CAPSULE left by some great forward thinking health care practioners!
From that Time Capsule to this starship - this has been created to help rebuild lost medical knowledge. Starting with diabetes...
we need to ensure that we have the skills to support care...
we need to assess your expertise in handling common diabetes scenarios...
We want to ensure that those with diabetes in hospital can get the help they need from a variety of clinical healthworkers!
Wow!
Here in the DCU, or our Diabetes Coaching Unit, many have already come and gone!
All helping us to gain as much experience as we can, before we commit our learnings and guidance more widely...
and share what works best at scale... our ethos is to 'Get It Right First Time...'
Sorry, but this is too much. I am not part of any diabetes team!
So, if you don't mind, this has all been very interesting, but I am just a Doctor...
I'm leaving!
This is the exit I presume?
You are never 'just a Doctor'!
And I think you'll find...
Huh?
...that you can only exit the room once you completely each case study successfully!
Wow!
That's so Trippy!
How exactly are we supposed to solve these diabetes caes?? We don't need to know about diabetics, we have a diabetes team in my hospital that does all that!
We don't have a diabetes team in our hospital!
Nor do we!
Based on previous 'visitors' here, I bet that your diabetes team do not work 24/7/365??
Well no, but...
And that is my point.
Diabetes is a common disease.
We need the clinical workforce to feel empowered and confident enough to address the diabetes basics.
To help "people with diabetes", And Not "diabetics"
at all times, night and day! 24/7/365

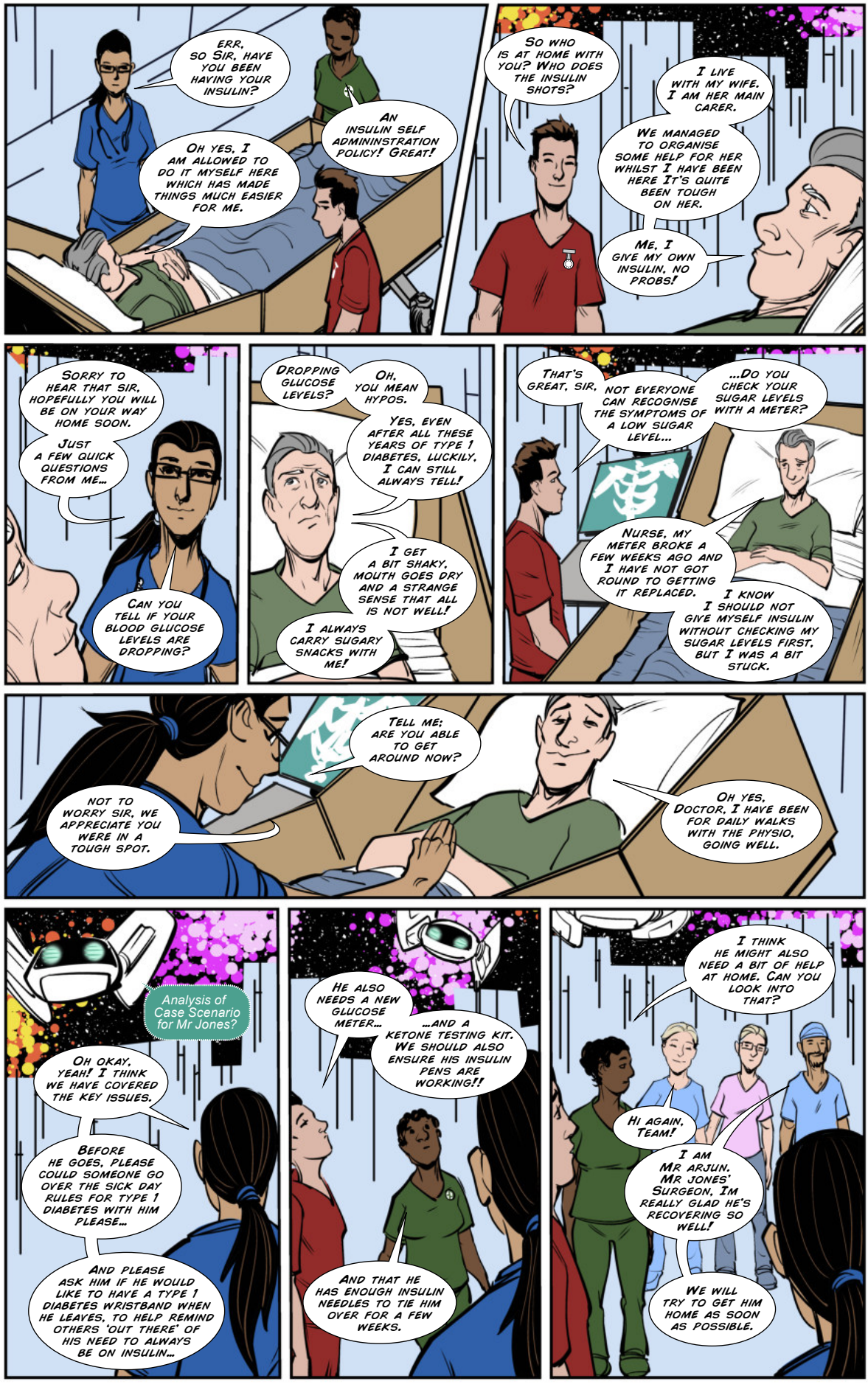

Okay. I have heard enough. We are all healthcare workers, yes? We have all brought our particular set of skills...
We can do this, right?
I appreciate the 'can do' attitude to this. Your first case will begin soon...
I will be leaving you now, because sometimes, like real life, you will only have yourself and your team to rely on.
And our hospital guidelines!
Why of course!
You are putting us under a lot of pressure Professor Gerry!
Pressure makes diamonds, doctor.
I have faith in all of you.
Goodbye for now and good luck!
So that's it? Just us? To do what?
How do we know when it starts?
Well, whatever challenge 'the workplace' throws at us,
I always find it helps to know the team I am working with...
I am Dr Krisha, good to meet you!
Olá
Nurse Santiago at your service... a pleasure to meet you both...
And I'm Imani, a ward pharmacist.
Looks like we can't all shake hands at the same time!
Yes there is...
And we're all...
...in this...
...Together!
BEGIN!
Ah so thats how it starts.

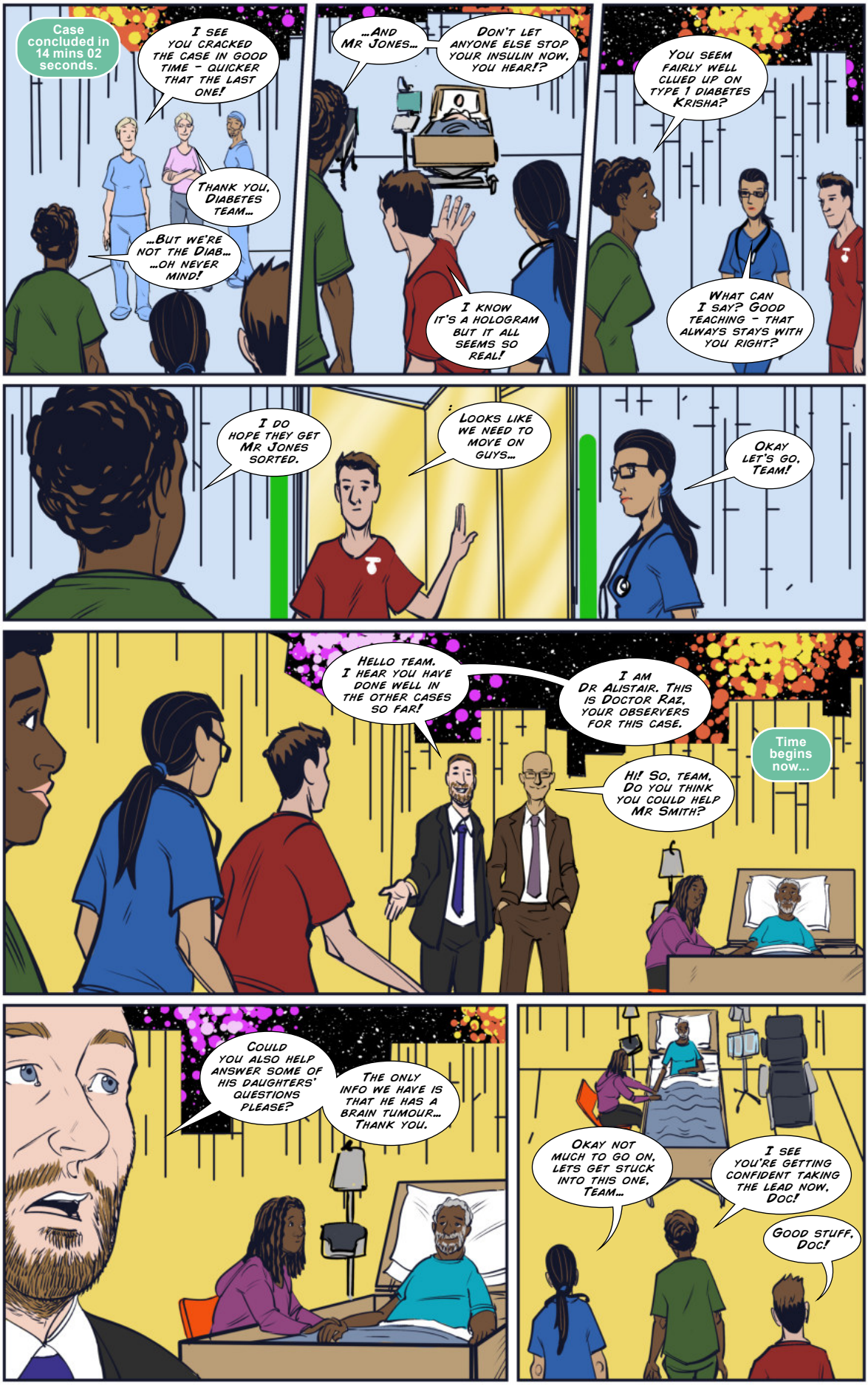

Oh look - This must be our first patient!
I feel like I am in some sort of "Mission Impossible"!
Well, let's prove it's possible! Let's get started then...
Hello I'm Nurse Santiago and we're here to help you... What's your name?
It's Mrs Desai...
Hello team, I am Dr Ketan, this is Nurse Paula.
We are here to observe, don't mind us! But we will give you some information...
Oh... okay...
Mrs Desai is a 75 year old lady admitted following a fall. She has type 2 diabetes.
She keeps experiencing recurrent episodes of hypoglycaemia. Think you can work out why please?
Let's use our combined skills and knowledge to crack this case, team!
Shouldn't you take the lead, Doctor?
Ah yes... okay... Sanitago wasn't it?
Yes, okay... maybe we should look at the Ladies chart...
No problem, Doctor!
Then, Imani, you take a look at what meds she has recieved.
I will, Doctor!
Mrs Desai, don't worry we'll have you sorted in no time.
Looking at your charts, You have had almost daily episodes of hypoglycaemia, Low Blood sugar, between 05:00 and 06:00h? Yes?
Yes, that sounds about right, young man!
The treatment used is very much like what we use where I work.
I see she has also lost around 5kg in weight since admission.
Food chart suggests her intake is variable...
You ladies got anything?
No unusual drugs prescribed.
Though I do notice Sulphonylurea tablets are prescribed...
...and administered at bedtime...
...Doc?


Hmm... I can see that her HbA1c blood glucose management marker is perhaps lower than I would like in a lady in her situation.
I also notice her kidney function is only at 20%.
Hello Mrs Desai, I'm Dr Krisha.
Could I just ask if you are usually able to tell if your blood sugar level feels low?
uh huh... yes!
So what sort of feelings do you experience then?
I get lightheaded, shaky and sweaty, Doctor.
hmm, recurrent hypos... but why?
Let me think back to my uni lectures on hypoglycaemia...
GLUCOSE
INSULIN
More Insulin + Less Glucose = hypoglycaemia!
Imani, remind me how her diabetes pills work?
The SUlphonylureas, or SU's, yes, they are pills that metaphorically 'squeeze' the pancreas to release insulin...
...to help lower glucose levels after a meal...
but she has been receiving her tablets at bedtime..!
SNAP
Oh!! That's it!! This tablet is prescribed at the wrong time!
...and is also being used at a reduced level of kidney function...
the body can't excrete it properly, so it works for longer... resulting in hypos!
...and adding to that, according to her notes,
she has been off the ward lots for scans, physio and things...
...and seems to have missed some meals...
That's it!
BEE-BOOP
Status report? Direction of Treatment via audio input...
Oh, okay- Well,
Putting it all together, we think the combination of missed meals,
...weight loss, increased physical activity with the physios,
As well as inappropriate use of a diabetes drug given at the wrong time,
with reduced kidney function, are all factors that can be implicated in causing recurrent hypoglycaemia.
-Logged-
Mrs Desai I think we found what could be the trouble and we'll take care of you!
Thank you,
We will add notes to your chart documenting our thoughts and suggested actions.
And you will also need to see the dietitian...
Thank you so much!

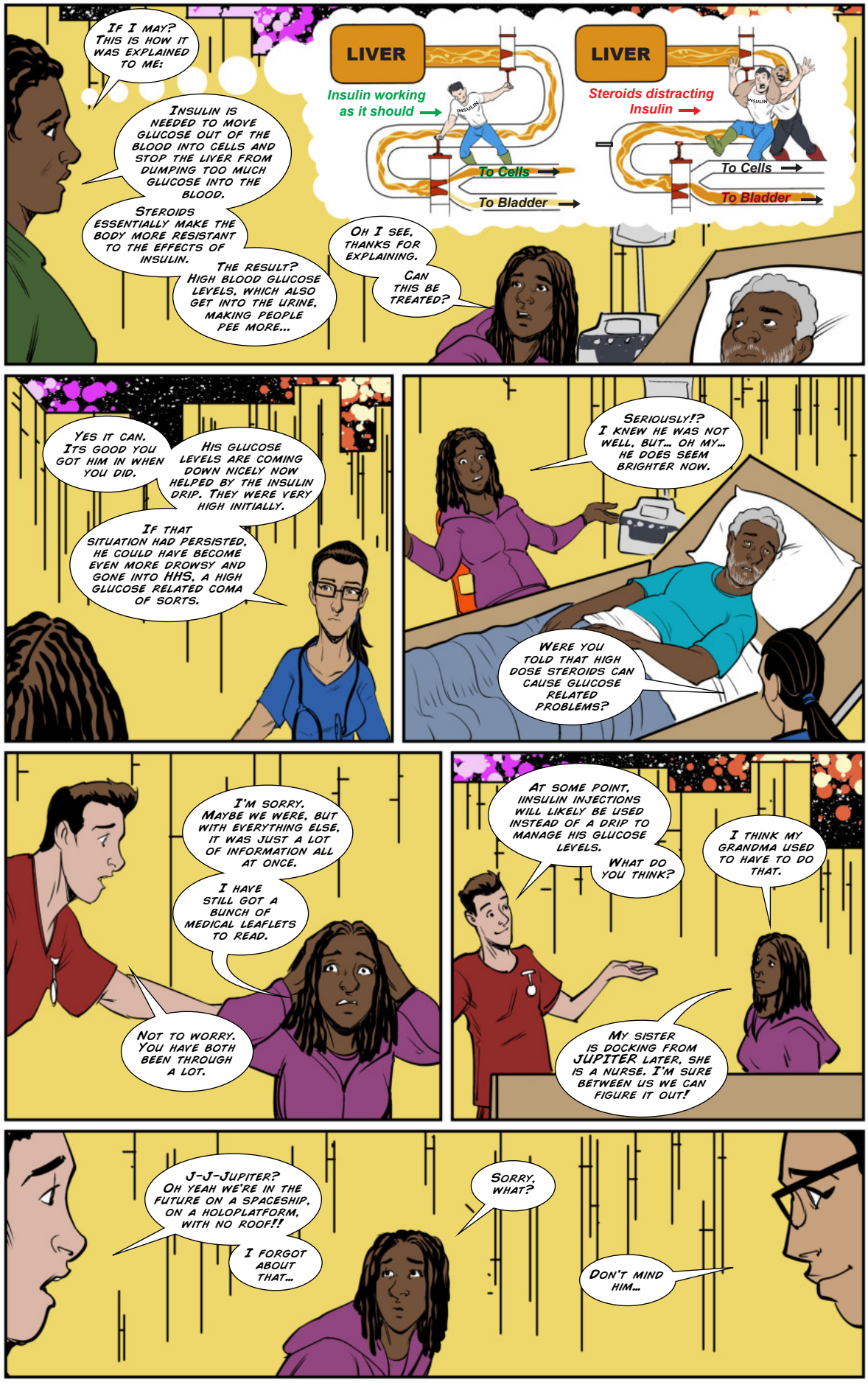

Well done, Imani... Well done Team!!
So we have cracked our first case! Great work team! What now?
Case concluded in 15 mins 44 seconds.
Hmm longer than Average. But well done!
Wow!
I did not appreciate how many things can cause hypoglycaemia.
Not as simple as I first thought... But 'no SU's before patients snooze', glad I clocked that at least...
Wait! We're being timed too??
Wow! Look! It's pointing us to the door!
I guess we follow the green line then??
Yeah come on lets go if were being timed!
Hopefully this time it won't just spit us back out in the same place!
We're in a new room?
Doctor, are you getting a "bigger on the inside" kinda vibe?
Huh?
Nevermind...
Looks like they still haven't fixed the roof on yet!
Time begins now...
And it seems that time is of the essence...
Hi there!
I'm Doctor Nicki...
BEE-BOOP
This is Nurse Esther, and and we will be observing this case.
Hi!
Behind us is Mr Jones!
He is a 75 year old man who is known to have type 1 diabetes. He was admitted very unwell last week and found to be in DKA*.
*Diabetic KetoAcidosis. - emergency state in diabetes.
He did not respond to the usual treatment protocol as expected.
It turned out the poor man also had a bowel perforation and required emergency surgery.
What we really need from you is to determine if he is medically fit to be discharged please...

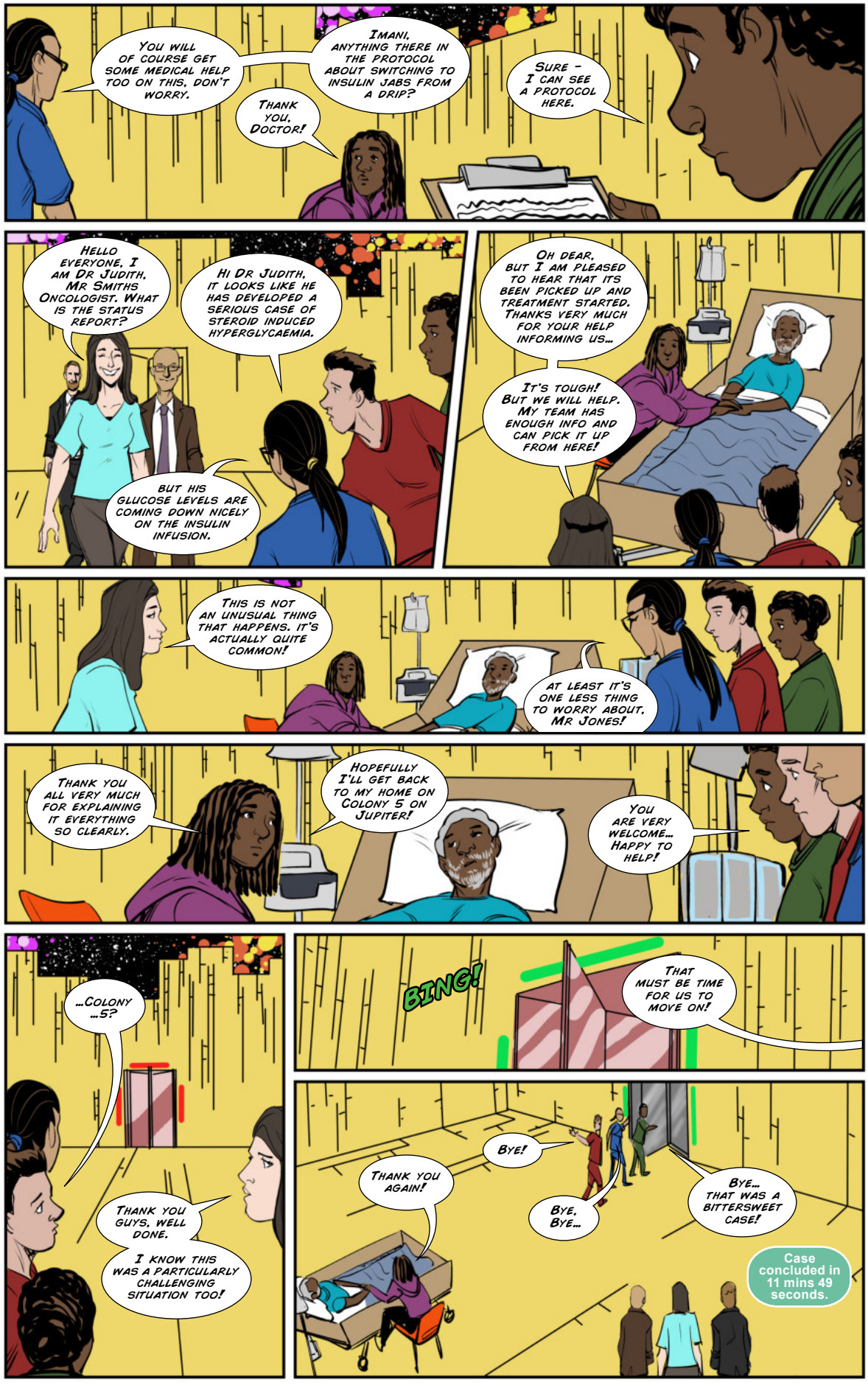

Should I take the lead again?
By all means, as long as we are heard.
And valued!
Yes, Absolutely, team!
Okay, so he has type 1 diabetes.
Oh gosh, it says here...
his family doctor thought he had been on insulin for far too long...
and switched him to diabetes tablets!?
No wonder he developed DKA, sorry, Diabetic KetoAcidosis. Oops...
Type 1 diabetes - insulin for life right?
Indeed! Unfortunately there are sometimes knowledge gaps around type 1 diabetes in the healthcare community...
and I'm sure we can help with that...
Hello Mr Jones, I am Nurse Santiago, how are you feeling?
Hello there, team. I am feeling pretty good thanks and really keen to go home.
We just want to make sure you're healthy before you leave us!
According to his charts, his wounds are healing well...
...and he seems to be eating and drinking ok. His blood glucose levels are also reasonable.
Krisha, do you think the DKA caused his bowel perforation?
hmm, good question, I'm not sure...
But I do know that DKA can cause abdominal pain from the high levels of ketones.
Should always think about other health conditions that can raise glucose levels for sure...
Ah yes, Keetz must have called?
Keetz?
ah sorry!.
I'm just remembering a comic I read about DKA once...
A Comic? Cool!
Remind me, Krisha, why does DKA happen?
Ah Rob, can you help visualise DKA?
As with many motorised vehicles in your time, the body needs to run on the right fuel, in humans chiefly glucose, to provide energy.
Cells are where energy is generated,
When insulin levels are too low to enable glucose entry into cells, there is a switch to an alternative fuel source, the fat stores!
Meanwhile, glucose levels will rise in the bloodstream as it cannot enter the cells.
Using body fat as a fuel source is insufficient long term, resulting in 'acidic' ketone production as a consequence,
which after a few hours, in type 1 diabetes, can result in DKA...
Ah yes!

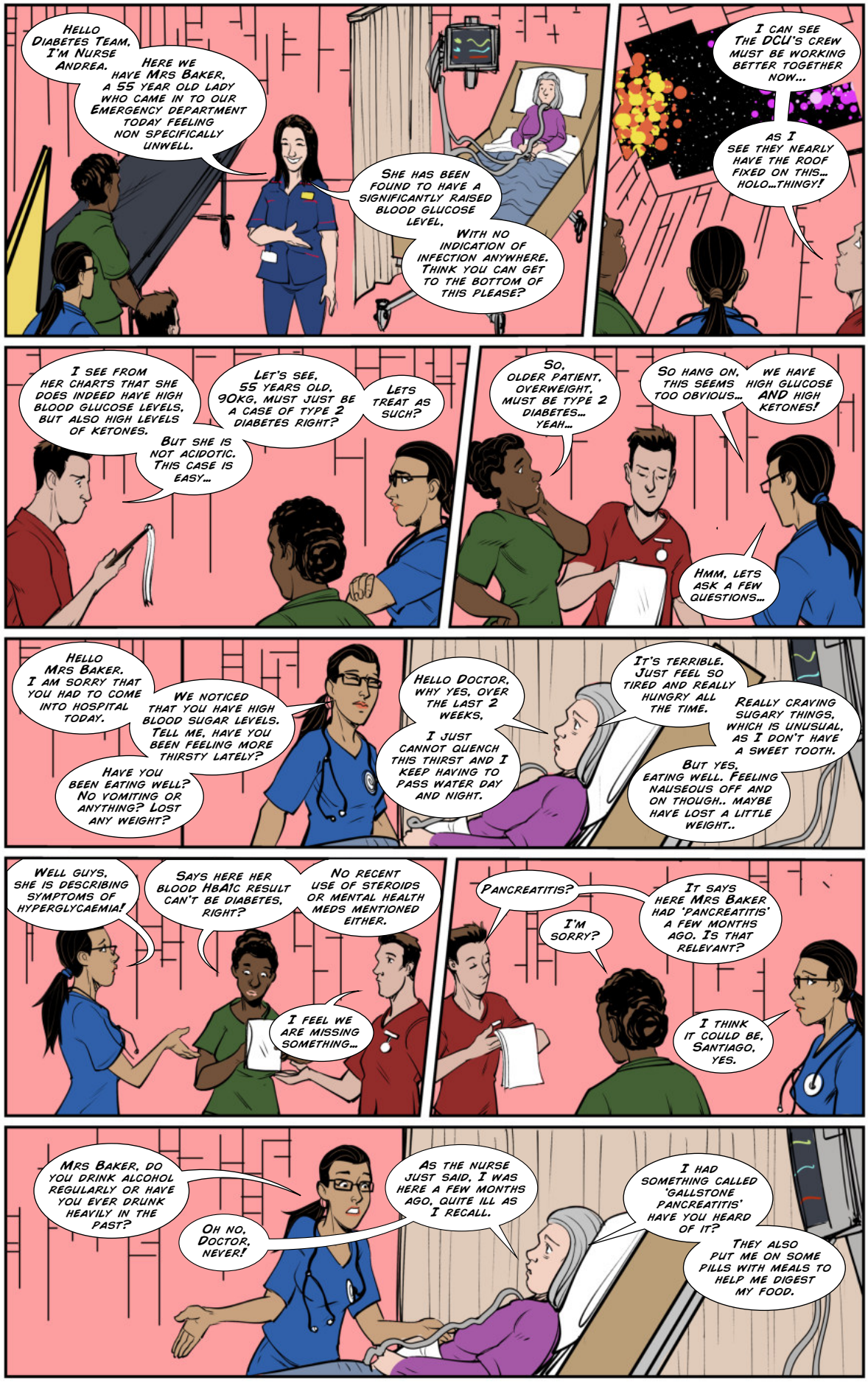

ERR, SO SIR, HAVE YOU BEEN HAVING YOUR INSULIN?
OH YES, I AM ALLOWED TO DO IT MYSELF HERE WHICH HAS MADE THINGS MUCH EASIER FOR ME.
AN INSULIN SELF ADMININSTRATION POLICY! GREAT!
SO WHO IS AT HOME WITH YOU? WHO DOES THE INSULIN SHOTS?
I LIVE WITH MY WIFE. I AM HER MAIN CARER.
WE MANAGED TO ORGANISE SOME HELP FOR HER WHILST I HAVE BEEN HERE IT'S QUITE BEEN TOUGH ON HER.
ME, I GIVE MY OWN INSULIN, NO PROBS!
SORRY TO HEAR THAT SIR, HOPEFULLY YOU WILL BE ON YOUR WAY HOME SOON.
JUST A FEW QUICK QUESTIONS FROM ME...
CAN YOU TELL IF YOUR BLOOD GLUCOSE LEVELS ARE DROPPING?
DROPPING GLUCOSE LEVELS?
OH, YOU MEAN HYPOS.
YES, EVEN AFTER ALL THESE YEARS OF TYPE 1 DIABETES, LUCKILY, I CAN STILL ALWAYS TELL!
I GET A BIT SHAKY, MOUTH GOES DRY AND A STRANGE SENSE THAT ALL IS NOT WELL!
I ALWAYS CARRY SUGARY SNACKS WITH ME!
THAT'S GREAT, SIR, NOT EVERYONE CAN RECOGNISE THE SYMPTOMS OF A LOW SUGAR LEVEL...
...DO YOU CHECK YOUR SUGAR LEVELS WITH A METER?
NURSE, MY METER BROKE A FEW WEEKS AGO AND I HAVE NOT GOT ROUND TO GETTING IT REPLACED.
I KNOW I SHOULD NOT GIVE MYSELF INSULIN WITHOUT CHECKING MY SUGAR LEVELS FIRST, BUT I WAS A BIT STUCK.
TELL ME; ARE YOU ABLE TO GET AROUND NOW?
NOT TO WORRY SIR, WE APPRECIATE YOU WERE IN A TOUGH SPOT.
OH YES, DOCTOR, I HAVE BEEN FOR DAILY WALKS WITH THE PHYSIO, GOING WELL.
Analysis of Case Scenario for Mr Jones?
OH OKAY, YEAH! I THINK WE HAVE COVERED THE KEY ISSUES.
BEFORE HE GOES, PLEASE COULD SOMEONE GO OVER THE SICK DAY RULES FOR TYPE 1 DIABETES WITH HIM PLEASE...
AND PLEASE ASK HIM IF HE WOULD LIKE TO HAVE A TYPE 1 DIABETES WRISTBAND WHEN HE LEAVES, TO HELP REMIND OTHERS 'OUT THERE' OF HIS NEED TO ALWAYS BE ON INSULIN...
HE ALSO NEEDS A NEW GLUCOSE METER...
...AND A KETONE TESTING KIT. WE SHOULD ALSO ENSURE HIS INSULIN PENS ARE WORKING!!
AND THAT HE HAS ENOUGH INSULIN NEEDLES TO TIE HIM OVER FOR A FEW WEEKS.
I THINK HE MIGHT ALSO NEED A BIT OF HELP AT HOME. CAN YOU LOOK INTO THAT?
HI AGAIN, TEAM!
I AM MR ARJUN. MR JONES' SURGEON. IM REALLY GLAD HE'S RECOVERING SO WELL!
WE WILL TRY TO GET HIM HOME AS SOON AS POSSIBLE.

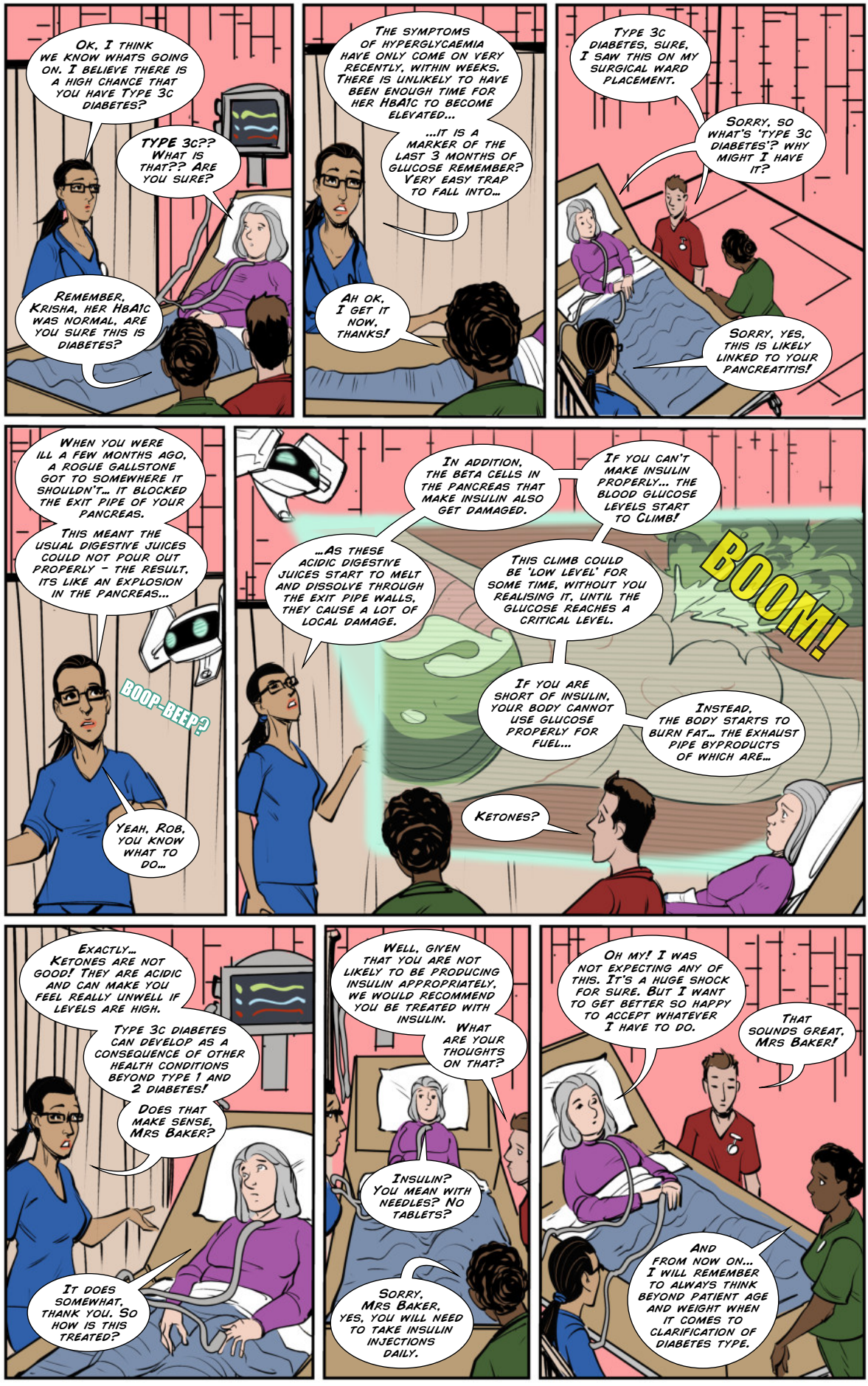

Case concluded in 14 mins 02 seconds.
I see you cracked the case in good time - quicker that the last one!
Thank you, Diabetes team...
...But we're not the Diab... ...oh never mind!
...And Mr Jones...
Don't let anyone else stop your insulin now, you hear!?
I know it's a hologram but it all seems so real!
You seem fairly well clued up on type 1 diabetes Krisha?
What can I say? Good teaching - that always stays with you right?
I do hope they get Mr Jones sorted.
Looks like we need to move on guys...
Okay let's go, Team!
Hello team. I hear you have done well in the other cases so far!
I am Dr Alistair. This is Doctor Raz, your observers for this case.
Time begins now...
Hi! So, team. Do you think you could help Mr Smith?
Could you also help answer some of his daughters' questions please?
The only info we have is that he has a brain tumour... Thank you.
Okay not much to go on, lets get stuck into this one, Team...
I see you're getting confident taking the lead now, Doc!
Good stuff, Doc!

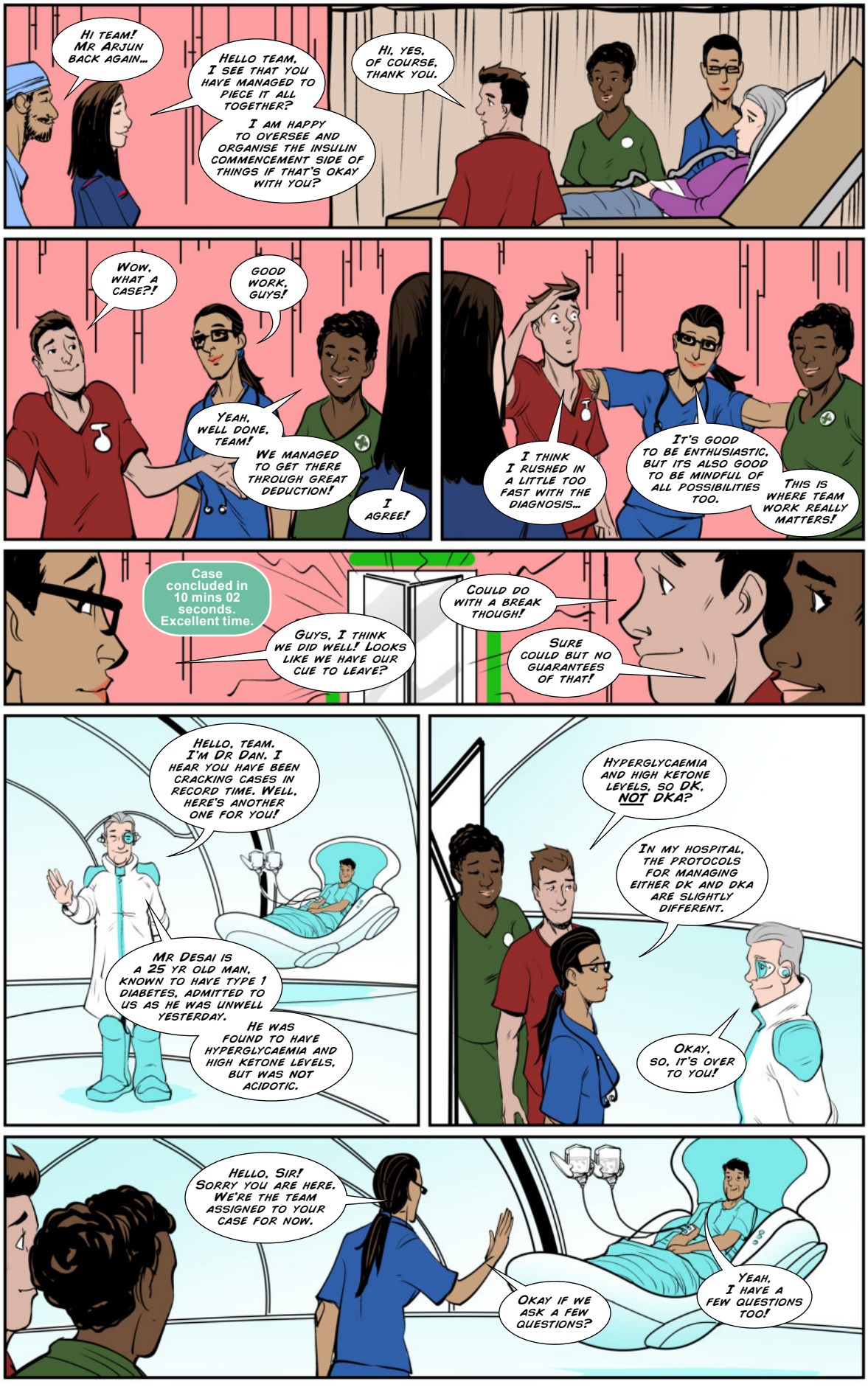

Errmm… hi there, are you here to help me and my Dad?
Of course. I am Santiago, nice to meet you both.
Can you give us any information on your dad's condition?
Well, Dad was diagnosed with a brain tumour a few weeks back. He seems to have been more muddled and tired over the last few days. He was not his usual self.
I was so worried, so I got him admitted. The other doctors said something about diabetes and started him on this drip.
Hi I'm Dr Krisha. We are sorry to hear about your dad.
Hi Doctor, thank you!
It's all been a bit of a whirlwind and confusing!
Says in his notes that he has been on high dose steroid tablets for the last few weeks!
…and he is now on an Insulin drip!
Errmm I have to tell you… I've kinda messed up in the past with steroids and diabetes before.
I advised the use of a diabetes drug that doesn't work well with high sugars caused by steroids!
Don't worry- we've got this!
We've all got your back, lets work together on this…
Thanks, …Team!
Ok, with the brain tumour, that would make sense.
So lets see:- steroids, drowsy, insulin drip…
Ah ok, he has got Hyperglycaemia, err… high glucose levels!
So Dads got diabetes now?? Oh gosh?
Well, not necessarily Miss Smith…
Steroids can cause high glucose levels without causing diabetes.
It's also likely that these persistent high levels can explain his symptoms of tiredness and being muddled.
Tell me, has he also been drinking more?
Yes, now you mention it! He says he always feels thirsty and is going to the toilet a lot to pee.
So why has this happened then?
ROB…
BEE-BOOP
Depict how steroids cause hyperglycaemia, symptoms, please…

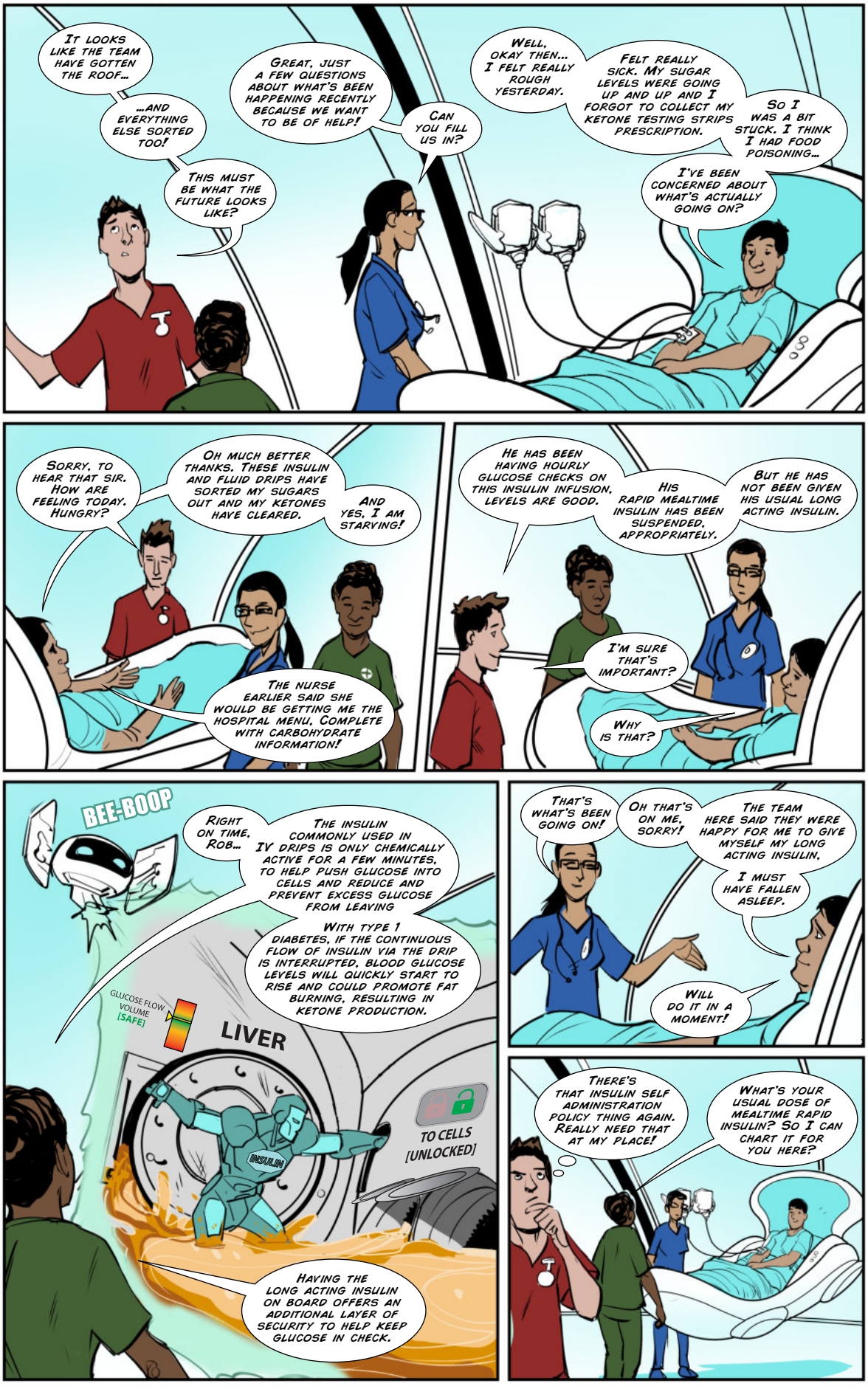

If I may? This is how it was explained to me:
Insulin is needed to move glucose out of the blood into cells and stop the liver from dumping too much glucose into the blood.
Steroids essentially make the body more resistant to the effects of insulin.
The result? High blood glucose levels, which also get into the urine, making people pee more...
LIVER
Insulin working as it should
To Cells
To Bladder
LIVER
Steroids distracting Insulin
To Cells
To Bladder
Oh I see, thanks for explaining.
Can this be treated?
Yes it can. Its good you got him in when you did.
His glucose levels are coming down nicely now helped by the insulin drip. They were very high initially.
If that situation had persisted, he could have become even more drowsy and gone into HHS, a high glucose related coma of sorts.
Seriously!? I knew he was not well, but... Oh my... he does seem brighter now.
Were you told that high dose steroids can cause glucose related problems?
I'm sorry. Maybe we were, but with everything else, it was just a lot of information all at once.
I have still got a bunch of medical leaflets to read.
Not to worry. You have both been through a lot.
At some point, iinsulin injections will likely be used instead of a drip to manage his glucose levels.
What do you think?
I think my grandma used to have to do that.
My sister is docking from JUPITER later, she is a nurse. I'm sure between us we can figure it out!
J-J-Jupiter? Oh yeah we're in the future on a spaceship, on a holoplatform, with no roof!!
I forgot about that...
Sorry, what?
Don't mind him...

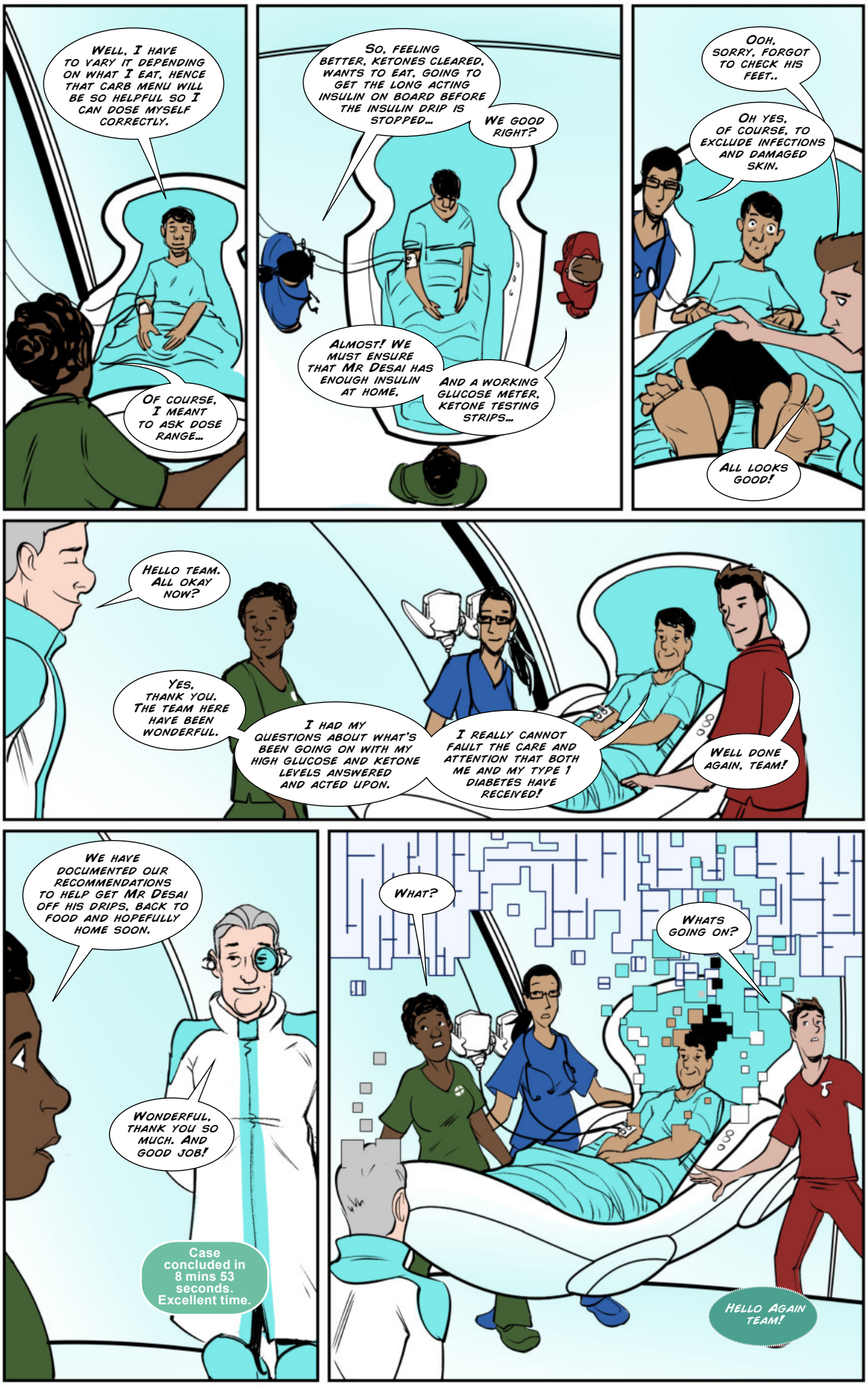

You will of course get some medical help too on this, don't worry.
Imani, anything there in the protocol about switching to insulin jabs from a drip?
Thank you, Doctor!
Sure - I can see a protocol here.
Hello everyone, I am Dr Judith, Mr Smiths Oncologist. What is the status report?
Hi Dr Judith, it looks like he has developed a serious case of steroid induced hyperglycaemia.
but his glucose levels are coming down nicely on the insulin infusion.
Oh dear, but I am pleased to hear that its been picked up and treatment started. Thanks very much for your help informing us...
It's tough! But we will help. My team has enough info and can pick it up from here!
This is not an unusual thing that happens. It's actually quite common!
at least it's one less thing to worry about, Mr Jones!
Thank you all very much for explaining it everything so clearly.
Hopefully I'll get back to my home on Colony 5 on Jupiter!
You are very welcome... Happy to help!
...Colony ...5?
Thank you guys, well done.
I know this was a particularly challenging situation too!
BING!
That must be time for us to move on!
Bye!
Thank you again!
Bye, Bye...
Bye... that was a bittersweet case!
Case concluded in 11 mins 49 seconds.

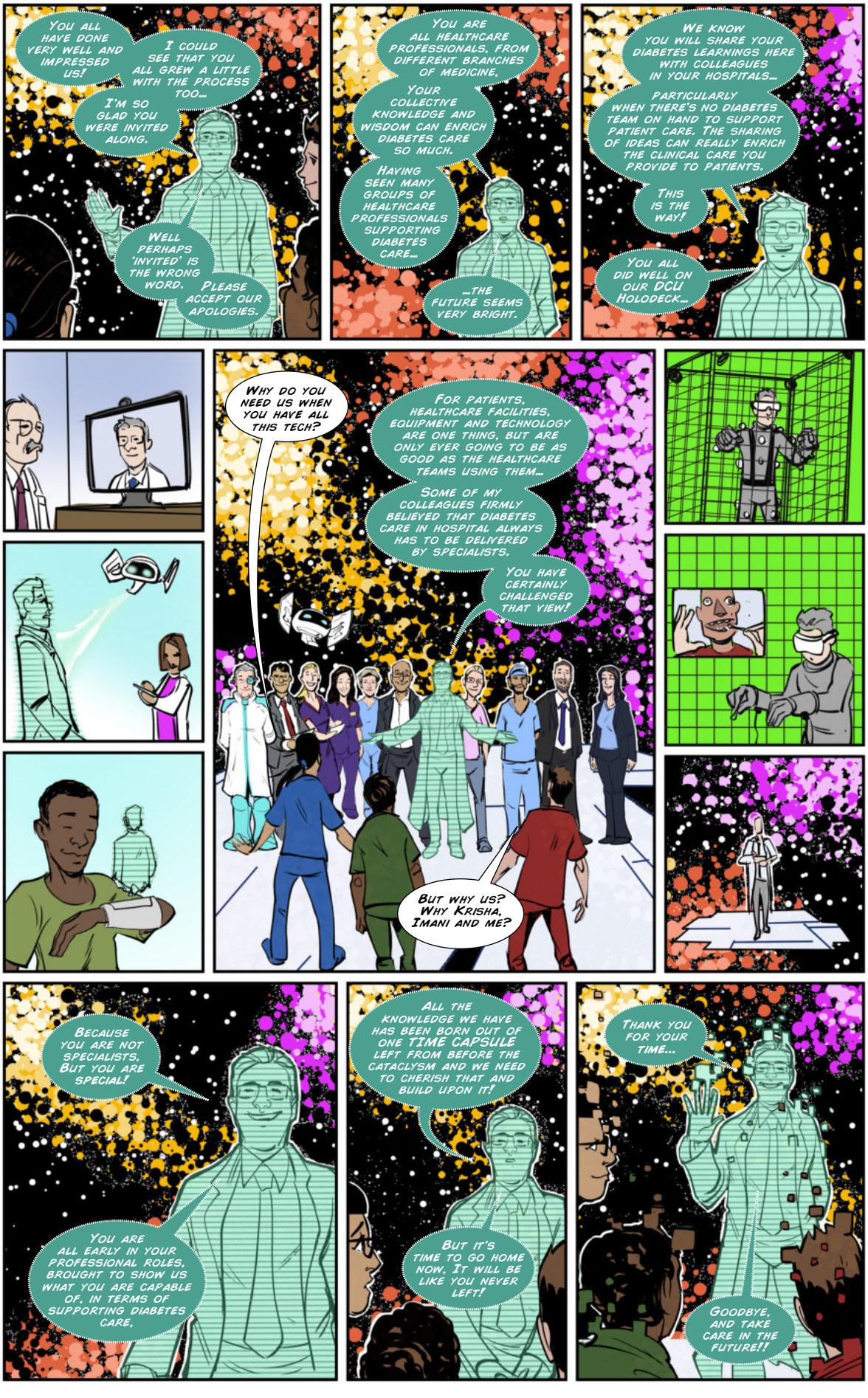

Hello Diabetes Team, I'm Nurse Andrea.
Here we have Mrs Baker, a 55 year old lady who came in to our Emergency department today feeling non specifically unwell.
She has been found to have a significantly raised blood glucose level,
With no indication of infection anywhere. Think you can get to the bottom of this please?
I can see The DCU's crew must be working better together now...
as I see they nearly have the roof fixed on this... holo...thingy!
I see from her charts that she does indeed have high blood glucose levels, but also high levels of ketones.
But she is not acidotic. This case is easy...
Let's see, 55 years old, 90kg, must just be a case of type 2 diabetes right?
Lets treat as such?
So, older patient, overweight, must be type 2 diabetes... yeah...
So hang on, this seems too obvious...
we have high glucose AND high ketones!
Hmm, lets ask a few questions...
Hello Mrs Baker. I am sorry that you had to come into hospital today.
We noticed that you have high blood sugar levels. Tell me, have you been feeling more thirsty lately?
Have you been eating well? No vomiting or anything? Lost any weight?
Hello Doctor, why yes, over the last 2 weeks,
I just cannot quench this thirst and I keep having to pass water day and night.
It's terrible. Just feel so tired and really hungry all the time.
Really craving sugary things, which is unusual, as I don't have a sweet tooth.
But yes, eating well. Feeling nauseous off and on though.. maybe have lost a little weight..
Well guys, she is describing symptoms of hyperglycaemia!
Says here her blood HbA1c result can't be diabetes, right?
No recent use of steroids or mental health meds mentioned either.
I feel we are missing something...
Pancreatitis?
I'm sorry?
It says here Mrs Baker had 'pancreatitis' a few months ago. Is that relevant?
I think it could be, Santiago, yes.
Mrs Baker, do you drink alcohol regularly or have you ever drunk heavily in the past?
Oh no, Doctor, never!
As the nurse just said, I was here a few months ago, quite ill as I recall.
I had something called 'gallstone pancreatitis' have you heard of it?
They also put me on some pills with meals to help me digest my food.

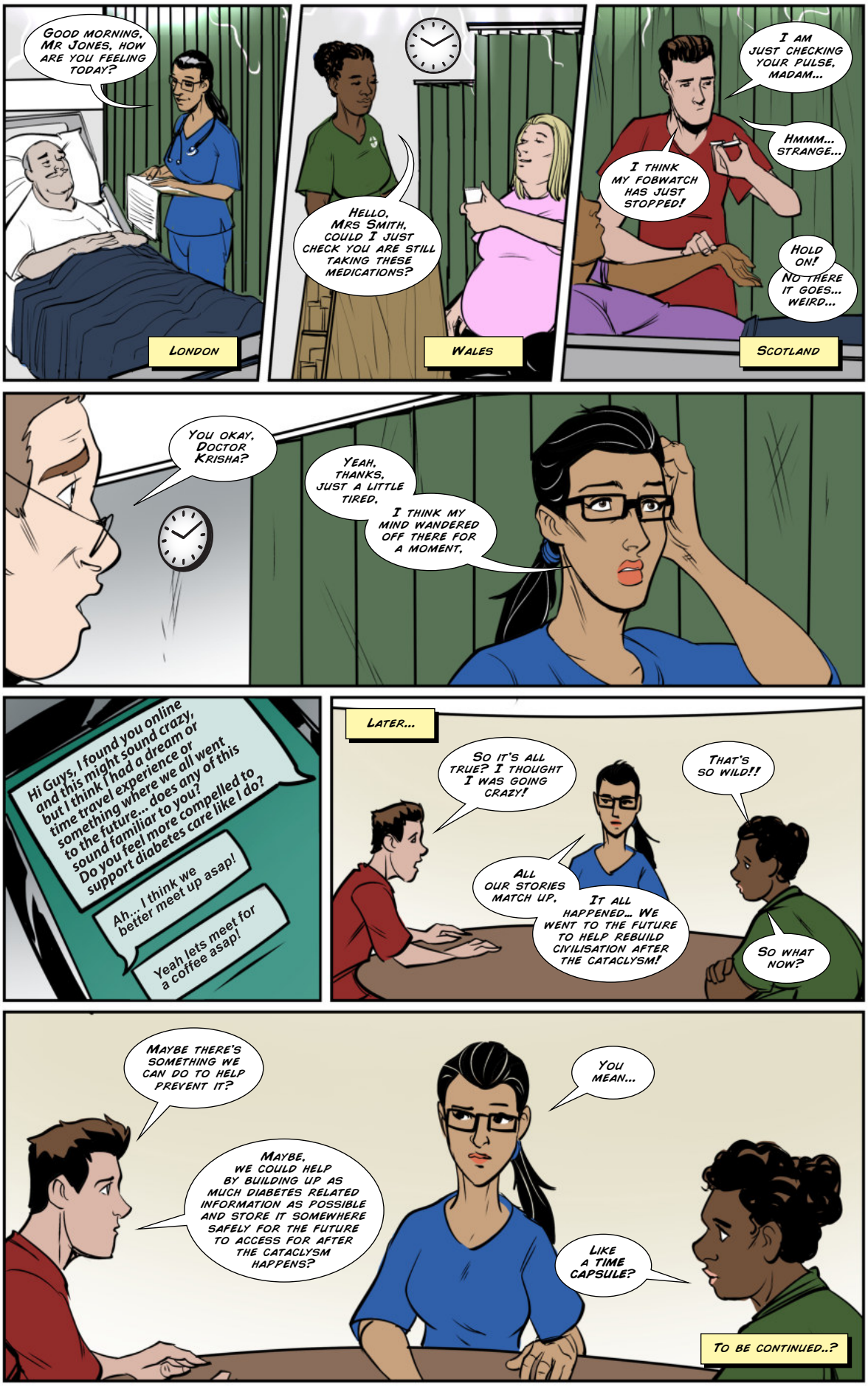

Ok, I think we know whats going on. I believe there is a high chance that you have Type 3c diabetes?
TYPE 3c?? What is that?? Are you sure?
Remember, Krisha, her HbA1c was normal, are you sure this is diabetes?
The symptoms of hyperglycaemia have only come on very recently, within weeks. There is unlikely to have been enough time for her HbA1c to become elevated...
...It is a marker of the last 3 months of glucose remember? Very easy trap to fall into...
Ah ok, I get it now, thanks!
Type 3c diabetes, sure, I saw this on my surgical ward placement.
Sorry, so what's 'type 3c diabetes'? why might I have it?
Sorry, yes, this is likely linked to your pancreatitis!
When you were ill a few months ago, a rogue gallstone got to somewhere it shouldn't... it blocked the exit pipe of your pancreas.
This meant the usual digestive juices could not pour out properly - the result, its like an explosion in the pancreas...
BOOP-BEEP?
Yeah, Rob, you know what to do...
In addition, the beta cells in the pancreas that make insulin also get damaged.
If you can't make insulin properly... the blood glucose levels start to climb!
...As these acidic digestive juices start to melt and dissolve through the exit pipe walls, they cause a lot of local damage.
This climb could be 'low level' for some time, without you realising it, until the glucose reaches a critical level.
BOOM!
If you are short of insulin, your body cannot use glucose properly for fuel...
Instead, the body starts to burn fat... the exhaust pipe byproducts of which are...
Ketones?
Exactly... Ketones are not good! They are acidic and can make you feel really unwell if levels are high.
Type 3c diabetes can develop as a consequence of other health conditions beyond type 1 and 2 diabetes!
Does that make sense, Mrs Baker?
It does somewhat, thank you. So how is this treated?
Well, given that you are not likely to be producing insulin appropriately, we would recommend you be treated with insulin.
What are your thoughts on that?
Insulin? You mean with needles? No tablets?
Sorry, Mrs Baker, yes, you will need to take insulin injections daily.
Oh my! I was not expecting any of this. It's a huge shock for sure. But I want to get better so happy to accept whatever I have to do.
That sounds great, Mrs Baker!
And from now on... I will remember to always think beyond patient age and weight when it comes to clarification of diabetes type.


Hi team! Mr Arjun back again...
Hello team. I see that you have managed to piece it all together?
I am happy to oversee and organise the insulin commencement side of things if that's okay with you?
Hi, yes, of course, thank you.
Wow, what a case?!
Good work, guys!
Yeah, well done, team!
We managed to get there through great deduction!
I agree!
I think I rushed in a little too fast with the diagnosis...
It's good to be enthusiastic, but its also good to be mindful of all possibilities too.
This is where team work really matters!
Case concluded in 10 mins 02 seconds. Excellent time.
Guys, I think we did well! Looks like we have our cue to leave?
Could do with a break though!
Sure could but no guarantees of that!
Hello, team. I'm Dr Dan. I hear you have been cracking cases in record time. Well, here's another one for you!
Mr Desai is a 25 yr old man, known to have type 1 diabetes, admitted to us as he was unwell yesterday.
He was found to have hyperglycaemia and high ketone levels, but was not acidotic.
Hyperglycaemia and high ketone levels, so DK, NOT DKA?
In my hospital, the protocols for managing either DK and DKA are slightly different.
Okay, so, it's over to you!
Hello, Sir! Sorry you are here. We're the team assigned to your case for now.
Okay if we ask a few questions?
Yeah, I have a few questions too!


It looks like the team have gotten the roof...
...and everything else sorted too!
This must be what the future looks like?
Great, just a few questions about what's been happening recently because we want to be of help!
Can you fill us in?
Well, okay then... I felt really rough yesterday.
Felt really sick. My sugar levels were going up and up and I forgot to collect my ketone testing strips prescription.
So I was a bit stuck. I think I had food poisoning...
I've been concerned about what's actually going on?
Sorry, to hear that sir. How are feeling today. Hungry?
Oh much better thanks. These insulin and fluid drips have sorted my sugars out and my ketones have cleared.
And yes, I am starving!
The nurse earlier said she would be getting me the hospital menu, Complete with carbohydrate information!
He has been having hourly glucose checks on this insulin infusion, levels are good.
His rapid mealtime insulin has been suspended, appropriately.
But he has not been given his usual long acting insulin.
I'm sure that's important?
Why is that?
BEE-BOOP
Right on time, Rob...
The insulin commonly used in IV drips is only chemically active for a few minutes, to help push glucose into cells and reduce and prevent excess glucose from leaving
With type 1 diabetes, if the continuous flow of insulin via the drip is interrupted, blood glucose levels will quickly start to rise and could promote fat burning, resulting in ketone production.
GLUCOSE FLOW VOLUME [SAFE]
LIVER
INSULIN
TO CELLS [UNLOCKED]
Having the long acting insulin on board offers an additional layer of security to help keep glucose in check.
That's what's been going on!
Oh that's on me, sorry!
The team here said they were happy for me to give myself my long acting insulin.
I must have fallen asleep.
Will do it in a moment!
There's that insulin self administration policy thing again. Really need that at my place!
What's your usual dose of mealtime rapid insulin? So I can chart it for you here?


Well, I have to vary it depending on what I eat, hence that carb menu will be so helpful so I can dose myself correctly.
Of course, I meant to ask dose range...
So, feeling better, ketones cleared, wants to eat, going to get the long acting insulin on board before the insulin drip is stopped...
We good right?
Almost! We must ensure that Mr Desai has enough insulin at home.
And a working glucose meter, ketone testing strips...
Ooh, sorry, forgot to check his feet..
Oh yes, of course, to exclude infections and damaged skin.
All looks good!
Hello team. All okay now?
Yes, thank you. The team here have been wonderful.
I had my questions about what's been going on with my high glucose and ketone levels answered and acted upon.
I really cannot fault the care and attention that both me and my type 1 diabetes have received!
Well done again, team!
We have documented our recommendations to help get Mr Desai off his drips, back to food and hopefully home soon.
Wonderful, thank you so much. And good job!
Case concluded in 8 mins 53 seconds. Excellent time.
What?
Whats going on?
Hello Again team!


You all have done very well and impressed us!
I could see that you all grew a little with the process too...
I'm so glad you were invited along.
Well perhaps 'invited' is the wrong word.
Please accept our apologies.
You are all healthcare professionals, from different branches of medicine.
Your collective knowledge and wisdom can enrich diabetes care so much.
Having seen many groups of healthcare professionals supporting diabetes care...
...the future seems very bright.
We know you will share your diabetes learnings here with colleagues in your hospitals...
particularly when there's no diabetes team on hand to support patient care. The sharing of ideas can really enrich the clinical care you provide to patients.
This is the way!
You all did well on our DCU Holodeck...
Why do you need us when you have all this tech?
For patients, healthcare facilities, equipment and technology are one thing, but are only ever going to be as good as the healthcare teams using them...
Some of my colleagues firmly believed that diabetes care in hospital always has to be delivered by specialists.
You have certainly challenged that view!
But why us? Why Krisha, Imani and me?
Because you are not specialists, But you are special!
You are all early in your professional roles, brought to show us what you are capable of, in terms of supporting diabetes care.
All the knowledge we have has been born out of one TIME CAPSULE left from before the cataclysm and we need to cherish that and build upon it!
But it's time to go home now. It will be like you never left!
Thank you for your time...
Goodbye, and take care in the future!!


Good morning, Mr Jones, how are you feeling today?
London
Hello, Mrs Smith, could I just check you are still taking these medications?
Wales
I am just checking your pulse, madam...
Hmmm... strange...
I think my fobwatch has just stopped!
Hold on! No there it goes... weird...
Scotland
You okay, Doctor Krisha?
Yeah, thanks, just a little tired.
I think my mind wandered off there for a moment.
Hi Guys, I found you online and this might sound crazy, but I think I had a dream or time travel experience or something where we all went to the future... does any of this sound familiar to you? Do you feel more compelled to support diabetes care like I do?
Ah... I think we better meet up asap!
Yeah lets meet for a coffee asap!
Later...
So it's all true? I thought I was going crazy!
That's so wild!!
All our stories match up.
It all happened... We went to the future to help rebuild civilisation after the cataclysm!
So what now?
Maybe there's something we can do to help prevent it?
Maybe, we could help by building up as much diabetes related information as possible and store it somewhere safely for the future to access for after the cataclysm happens?
You mean...
Like a time capsule?
To be continued..?

Diabetes Care in Hospital – Factors to consider for people with diabetes

'Knowing you are going': A 'planned' admission

- Seek to ensure that diabetes management is at the best it can be and seek help if needed to achieve this if needed.
- If there is a pre-admission hospital visit, e.g., to plan for an operation, always mention diabetes. Seek clarification on whether any diabetes medications need to be suspended or doses adjusted immediately before surgery. Hospitals are expected to provide guidance on this.
- Ensure your hospital bag (or a picture on your phone) contains up to date medications information (with doses taken clearly stated). If insulin is used, it is advised that a week's supply is brought in, with the correct insulin pen also packed.
- Though treatment for hypoglycaemia is readily available in hospital, people may wish to bring in their preferred sugar-based snacks from home.
- People using a personal insulin pump should inform their specialist team when and where they are going to be admitted, to enable a diabetes review either before or during the admission.
- Appropriate footwear should always be worn to help avoid the need of having to walk barefoot and risking damage to feet.

On the ward

- Ensure the staff know you have diabetes.
- If carbohydrate counting, ask if the carbohydrate content of the ward menu is available.
- Seek clarification around the impact of any treatment (e.g., an operation, use of steroids, or artificial feeds) on diabetes.
- As part of the surgical process, there is likely to be a need to administer insulin and sugary fluids intravenously, particularly if fasting is required.
- You should be having blood glucose monitored at regular intervals, as persistent high readings can contribute to delayed recovery and increased infection risk.
- The ward staff may seek a review from the hospital diabetes team on your behalf if there are any concerns.

An 'unplanned admission'

- Some people with diabetes elect to have an emergency diabetes kit at home that can be brought in, should an emergency admission occur.
- Some people let family or friends know about their diabetes situation, so they can help with giving relevant information to medical staff.
- Certain diabetes medications may need to be suspended when unwell.
- With acute illness, use of an intravenous insulin drip may be required to help stabilise glucose levels promptly.

All ward-based Hospital Staff should:

- Know who has diabetes and that they are monitored and supported appropriately.
- Understand the need not to miss, omit or delay insulin administration for those with type 1 diabetes.
- Recognise the impact of acute illness on diabetes.
- Ensure that prompt action is taken on deranged blood glucose readings.
- Be undertaking regular blood glucose monitoring on individuals on intravenous insulin drips.

Useful resources for Hospital Staff:

Inpatient diabetes clinical care guidelines:
- https://abcd.care/joint-british-diabetes-societies-jbds-inpatient-care-group

Centre for PeriOperative Care diabetes guidance:
- www.cpoc.org.uk

Getting It Right First-Time inpatient diabetes guidance
- https://gettingitrightfirsttime.co.uk/medical_specialties/diabetes-workstream/

Diabetes Care Accreditation Programme: (working to raise standards of diabetes care in hospital)
- www.dcap.org.uk

Microguide *(smartphone application to support inpatient diabetes care [choose University Hospital Southampton where prompted, then select DiAppbetes], content also at*
- https://viewer.microguide.global/UHSFT/DIAPPBETES)

Insulin safety training:
- https://diabetesonthenet.com/cpd-modules/the-six-steps-to-insulin-safety/

Revolve Comics

DIABETES: SECRET WARDS

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