

iTransfuse helping junior doctors give blood

Dr Ben Saxon noticed that junior doctors were struggling to administer blood transfusions and he decided to help. An app called iTransfuse is the result ...

DR Ben Saxon is a transfusion medicine specialist at the Australian Red Cross Blood Service (ARCBS), leading a team on transfusion policy and education.

In the course of doing his other job – paediatric haematologist at the Women’s and Children’s Hospital in Adelaide – Dr Saxon noticed that junior doctors were having trouble with transfusions.

“I’ve noticed that a lot of junior doctors have trouble working out how much blood to give people,” Dr Saxon tells the *MJA*. “They also have trouble defining adverse events and what to do when an adverse event happens.

“And they also expressed difficulty understanding blood typing and other aspects of transfusions. They just didn’t get much during their undergraduate training nor a huge amount of guidance once they graduated either.”

Dr Saxon decided to do something practical to help.

“We formed some focus groups and worked closely with junior doctors from around the country and got a lot of input,” Dr Saxon says.

“[From there] we developed some paper-based materials which we got out to all new interns this year around the country. Every one of them had it, and we got great feedback from that.

“Consistently people said this would be great if it was all in an

app, so we went back to our focus groups and confirmed that.”

He and his team at the ARCBS had already developed a few small smartphone apps including four games designed to teach the player how to match blood – “they’ve been incredibly popular”.

Working with a team of app developers from Good Dog Design (<https://gooddogdesign.com/>) Dr Saxon brought them all together as a “single go-to performance support resource for junior doctors” – called iTransfuse.

The app is designed to fill the gap until a junior doctor builds enough confidence in administering blood transfusions.

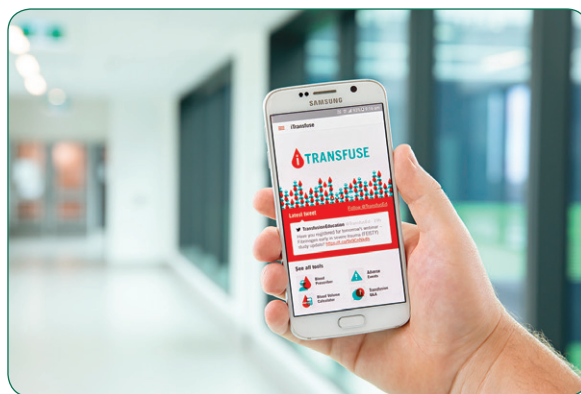
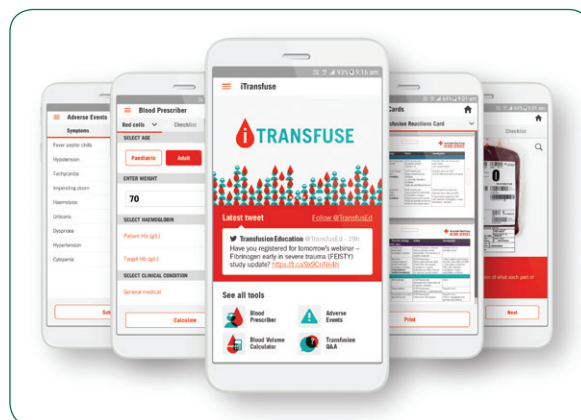
“If a doctor and patient have decided on a transfusion as the appropriate treatment, one part of the app helps you to work out what dose to give, and how long a period of time to give the blood over. Another part gives advice on informed consent, and another lets you know whether there should be something special about the blood being infused (irradiation etc),” Dr Saxon says.

“If the patient has a reaction you can punch in the type of symptoms they are having, and the app will then give you differential diagnoses, and you can then explore those further.

iTransfuse was launched on 2 June 2018, on a massive stage – the annual meeting of the International Society of Blood Transfusion in Toronto, Canada. It will be rolled out across Australia over the coming weeks. It is available in both IOS Apple and Android versions.

“We talked to the colleges, professional groups and societies during development, but we’re now seeking their endorsement,” Dr Saxon says. “We’re confident that a number of them will.

“What we’re not trying to do is force one particular treatment



on people. The app supports best practice, and junior doctors can choose to use it for as many weeks as they need to until they’re confident with doing transfusions.”

Blood transfusions, Dr Saxon says, are “the forgotten part of haematology”.

“A couple of centuries ago when I was a medical student I became interested in haematology,” he says.

“I love that you can see a patient, do the test, look down the microscope, report back to the patient with the results and go forward from there.

“People talk about the patient being a partner in their care – it’s been like that forever in haematology, a genuine partnership. Transfusions have become part of that for me.

“I love it.”

Cate Swannell

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