

3M™ Littmann®
Listen-In Mobile App



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Teach
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Learn



Transforming Auscultation Education

**A report on the use of Littmann Listen-In
mobile app in medical education at
Derbyshire Children's Hospital**

3M

Some comments from clinicians who have experienced the benefits 3M™ Littmann® Listen-In mobile app...

‘..most importantly it really is possible to listen and hear what the teacher is hearing at almost exactly the same moment

Consultant Paediatrician

‘..useful for heart murmurs and assessment of chest signs. Excellent for undergraduate teaching..’

Specialist Registrar in Paediatrics

‘There is no need to stop and have several doctors examine a poorly child repeatedly..’

Consultant Paediatrician

‘By linking three stethoscopes it was possible for the examiners to hear what the student could hear during their clinical examinations..’

Consultant Paediatrician

‘Excellent tool for identifying normal versus abnormal sounds. Good platform for discussion that is practical’

Foundation 1 doctor in Paediatrics.

‘If any of the doctors had been previously interpreting signs wrongly it was an opportunity to get this corrected’

GP registrar



Dr. Will Carroll

Paediatrician with a special interest in medical education

Derbyshire Children's Hospital, UK

Doctor Will Carroll is a paediatrician with a special interest in medical education working at the Derbyshire Children's Hospital, a teaching hospital with its own graduate-entry Medical School affiliated to Nottingham University.

'Like many people involved in medical education I wear several hats at once. **I have responsibility for teaching and examining 112 undergraduate medical students a year** here in Derby. I am also the Royal College of Paediatric and Child Health college tutor and regional advisor.

One of the minor problems I have found with stethoscopes is the length of time it takes to pass the device from one user to the next. **For some patients if all the students in a group were to listen to a sign it could take 10-15 minutes before they were all comfortable and ready to move on.** This inevitably leads to a bit of standing around and I could see that some students would begin to feel uncomfortable.

Anyone used to teaching will recognise the scene: four students can clearly identify a pan-systolic murmur but the fifth just can't hear it. Often, the student will claim that they can hear it clearly out of embarrassment so that we can move on to the next patient.



I was therefore really excited to hear that the new Littmann 3200 electronic stethoscopes could potentially be linked together. Thus, one stethoscope acts as a lead (or master) and the others as slaves. Really cool, most importantly, really fast. Whilst there is a half a second or so delay, **it really is possible to listen and hear what the teacher is hearing at almost exactly the same moment.**

As soon as my Littmann Listen-In device arrived I immediately wanted to use it. The first chance I got was in the student examinations. Here was a real first and an eye-opener for me. **By linking three stethoscopes it was possible for the examiners (we hunt in pairs in our hospital) to hear what the student could hear during their clinical examinations.**

There was no need to go back and listen to the child again and we could be confident that we were hearing exactly what the student heard. This seems so crucial to me for respiratory signs which can change from minute to minute in young children.

I was delighted to find that the examiners at least agreed consistently on the signs elicited. Although **we did find that many students misreported their findings. I was disappointed to hear wheeze so commonly reported as crepitations and vice versa.** I hope that by using these stethoscopes in teaching we can remedy this.

Certainly, as examiners we had a much higher level of confidence in agreeing a mark for each student. Recording the physical signs would have allowed us to offer better feedback and solve any disputes about what can be heard.



I have also found the Littmann Listen-In device helpful on my post-take ward rounds. These are usually business focussed but involve 3-4 junior doctors. **By linking 4 stethoscopes together everyone on the ward round can hear as well as see the physical signs. There is no need to stop and have several doctors examine a poorly child repeatedly** and doctors' feedback has been overwhelmingly positive.

Our early experiences have been very helpful. As I learn how to navigate the screens of the mobile application then I am sure that the device will be even more helpful. **I look forward to the return of our undergraduate medical students as I am certain they will benefit enormously from the availability of the Littmann Listen-In mobile app.** Perhaps my biggest challenge will be persuading them to return the stethoscopes at the end of each teaching session!

Dr. Will Carroll
Consultant Paediatrician
27th May 2011

For further information or to arrange a free demonstration of 3M™ Littmann® Listen-In mobile app, please call 01509 613569 / 613207 or e-mail: littmann.uk@mmm.com

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