



Neonatal Radiology Apps at the at point of care & training

KEYWORDS

Neonatal Radiology, Apps, Smartphone

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ABSTRACT

The Neonatology is a very challenging branch with almost zero scope of error in newborn care due to inherent attributes of the neonates. Hence, timely establishment of the exact diagnosis becomes imperative. It is essential to apply Neonatal Radiology most optimally for the effective neonatal management. Due to the peculiarities of Neonatal Radiology, it is desired that all the concerned professionals get optimally trained for the effective utilization of this immensely useful subspecialty. Only limited number of Neonatal Radiology Apps on Smartphones are available. These Apps can act as great facilitator. This article is aimed to sensitize Radiologists, Neonatologists and Pediatricians about the availability of the Neonatal Radiology Apps and their possible utility in clinical practice and training.

Introduction

The Neonatology is a very challenging branch with almost zero scope of error in newborn care due to inherent attributes of the neonates. Hence, timely establishment of the exact diagnosis becomes imperative. It is essential to apply Neonatal Radiology most optimally for the effective neonatal management. Due to peculiarities of the Neonatal Radiology, it is required that all the concerned professionals be optimally trained on the effective utilization of this immensely useful subspecialty. Only limited number of Apps on Smartphones are available which address to various domains of learning, self-evaluations, case simulations and access to latest publications, in neonatal imaging. 1,2,3,4,5. These Apps can act as great facilitator on the point of care and time of need with ease of availability round the clock being in smartphone. It has been observed that large numbers of medical professionals are still not fully well-versed with the existing subspecialty Apps. This article is aimed to sensitize Radiologists, Neonatologists and Pediatricians about the availability of the Neonatal Radiology Apps and their possible utility in clinical practice and training.

Neonatal Radiology Apps

The following Apps are the important Apps available on the subject, though it is likely that more will be progressively added.

1. NeoHead

A very useful app made by Indian doctors and provides interactive info on neonatal neuro-sonography. It is a paid App on IOS.

2. Cranial Ultrasound

Cranial Ultrasound is an educational neonatal quiz app designed for medical students, doctors, radiographers and healthcare professionals. This app provides over 50 real clinical cases, common and rarer pathologies, over 250 high-quality images. Cranial Ultrasound is an essential app. It is available both on Android and IOS platform and is paid app.

3. TnECHO

A very useful targeted neonatal echocardiography app developed by The Hospital for Sick Children, Toronto, Canada, for IOS platform for free download. This app sensitizes the neonatologists on bedside echocardiography & trains on basics of echo and some specific conditions like PDA and PPHN.

4. iSonographer Ultimate Atlas

A useful paid app available on both IOS & android platforms covers comprehensively reference ultrasound measurements of vascular and general ultrasound including Echocardiography. It includes USG of Neonatal Brain.

5. Pediatric Radiology Review

It is from Diagnostic Radiology Pediatric Board Review. It includes 700 multiple choices, facts, scenario and case-based questions, provides correct answers and explanations to help one quickly master examination content. One can score transcripts with missed key words to help you evaluate areas that need further study. It prepares effectively for Pediatric Radiology examinations. It is available both on Android and IOS platform and is paid app of Pediatric board.

6. Radiology

Radiology mobile application allows immediate access to full-text articles published in the Radiology journal for Radiological Society of North America (RSNA) members and subscribers with subscriptions. Non-subscribers can access all abstracts free of charge. The Radiology application includes the ability to view current and past full-text articles with high resolution images, watch and listen to related video and audio. Radiology has long been recognized as the authoritative source for the most current, clinically relevant and highest quality research in the field of radiology. It is available both at Apple & Google play stores.

7. Pediatric Radiology

Pediatric Radiology is the official journal of the Society for Pediatric Radiology (SPR), the European Society of Paedi-

atric Radiology (ESPR), the Asian and Oceanic Society for Pediatric Radiology, and the Latin American Society of Pediatric Radiology. It provides up-to-date scientific publications of the specialty. It is a paid app available on Apple store.

8. Pediatric XR

This app is on IOS platform and provides easy evaluation and practice platform for Pediatric X-ray cases for medical professionals. It is a good educational app, available free at Apple store.

9. Pediatric Ultrasound

Ultrasoundpaedia's Pediatric Ultrasound app is a detailed description on how to perform Pediatric/ Neonatal Ultrasound. It encompasses everything one needs to know about the anatomy and normal ultrasound appearances of the neonatal head and brain, hip and pylorus. Links are also available to useful websites for pathology and embryology. It has been created by professionals for professionals. This is a paid app available on both IOS & android platforms.

10. pedsMRI

The pedsMRI app provides pediatric MRI protocols at the fingertips of the user, developed by The Hospital for Sick Children, Toronto. It is a free app available both for Apple & Android users.

Discussion

The above apps can be obtained either as free download or on payment of relatively small amount from Google Play store for android phones and from iTunes for iPhones. Some of the apps are available only on one store. These apps should be used as ready facilitator but one should also analyze their authenticity and correctness to minimize the possible error.

Conclusion

To conclude, it is desired that the concerned professionals to become fully aware about the available subspecialty apps and optimally utilize them for the effective neonatal management. May be the individual institutes should consider developing their customized apps and spearhead the fast growing medical technical world.

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