

May 2018

BMJ Best Practice

How to get your app from 2 stars to 5 stars



Elin Goodwin | egoodwin@bmj.com | [@elliejs82](https://twitter.com/elliejs82)



Sources:

<https://www.i-webservices.com/top-5-reasons-why-mobile-apps-fail-iweb-services/> ; <https://www.startupgrind.com/blog/9999-in-10000-mobile-apps-will-fail-heres-why/> ; <https://www.gartner.com/newsroom/id/2648515>

Project: New BP app

Setting the scene

BMJ advancing healthcare since 1840



Working with healthcare professionals in over **153** countries



“A healthier world”

BMJ Best Practice



Digital clinical decision support - to be easily accessible anywhere and at any time



Advice on symptom evaluation and treatment approaches

LOADING.....

At one point, bundle download success rate was only 4% for Android

And taking up over 1GB of storage

Steps	Time Taken
Installation from Play Store	1 minute
Download all topics	10 minutes
Unpacking and indexing	20 minutes
<i>Total Time</i>	<i>31 minutes</i>



Danny Cyclone 10 March 2015



So unstable. Awesome app. When it works. Which is never. Slow, and when you actually manage to search a topic, it'll either freeze it crash. Useless.



Alfred Wong 16 February 2015



Keeps crashing Managed to download all subscribe topics but keeps crashing upon restarting the app. Had uninstalled & re-downloaded the topics but to no avail. Please fix. Xperia Z1

“Unstable and useless”



Still bugged by Keyes89

The new format is appealing and faster in performance. However the navigation from searching is too complicated- why search by chapter or subheading. The biggest issue is that of content stability - frequently the topics unsubscribe then need to re install; seemingly taking half a day. What point is a quick reference that is not quick at all!? Beyond that and now there is an appalling flaw that is the lack of resources. I have a full subscription and only 866 topics are available. For Gods sake is your IT department just trolling the general public here? GET IT TOGETHER.

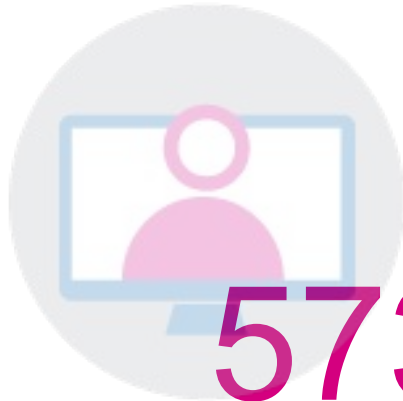
“GET IT TOGETHER”

Project: New BP app

Involving the user



40 workshops



573
prototype tests



50 site visits



318 interviews



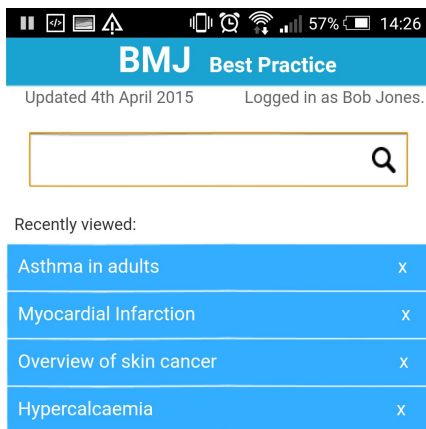
1000+
healthcare professionals



15 countries

Prototypes and testing feedback

10 rounds of initial prototypes

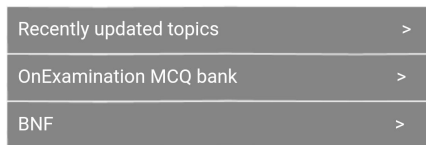


BMJ Best Practice
Updated 4th April 2015 Logged in as Bob Jones.

Search bar with magnifying glass icon

Recently viewed:

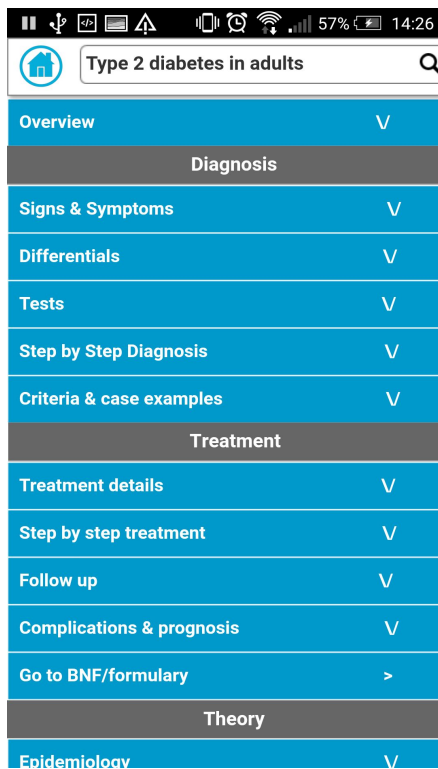
- Asthma in adults x
- Myocardial infarction x
- Overview of skin cancer x
- Hypercalcaemia x



Recently updated topics >

OnExamination MCQ bank >

BNF >



Type 2 diabetes in adults

Overview v

Diagnosis

Signs & Symptoms v

Differentials v

Tests v

Step by Step Diagnosis v

Criteria & case examples v

Treatment

Treatment details v

Step by step treatment v

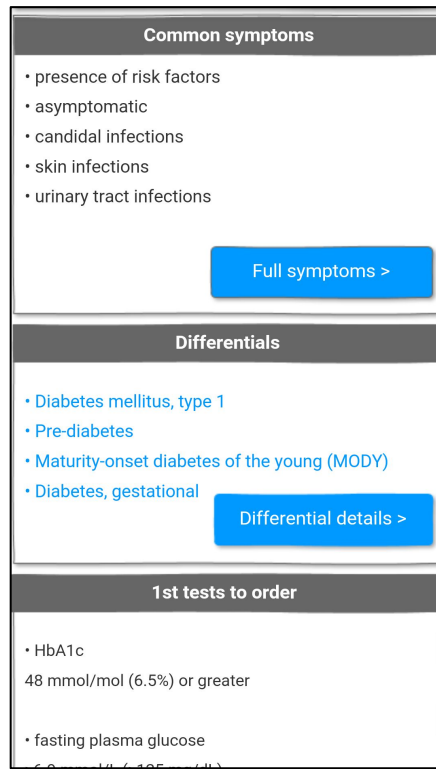
Follow up v

Complications & prognosis v

Go to BNF/formulary >

Theory

Epidemiology v



Common symptoms

- presence of risk factors
- asymptomatic
- candidal infections
- skin infections
- urinary tract infections

Full symptoms >

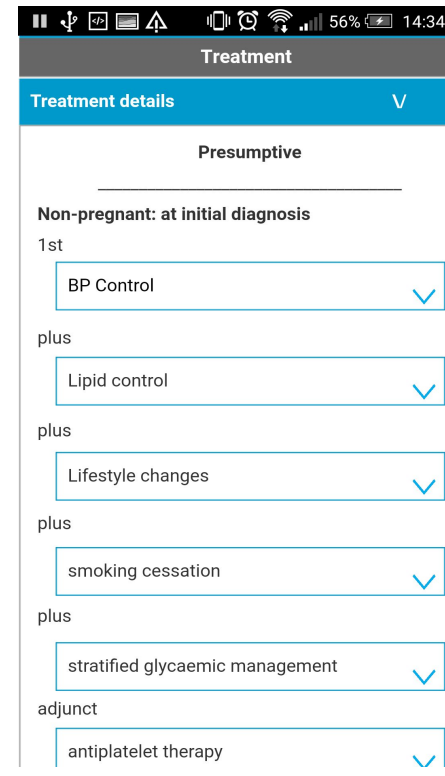
Differentials

- Diabetes mellitus, type 1
- Pre-diabetes
- Maturity-onset diabetes of the young (MODY)
- Diabetes, gestational

Differential details >

1st tests to order

- HbA1c
- 48 mmol/mol (6.5%) or greater
- fasting plasma glucose



Treatment

Treatment details v

Presumptive

Non-pregnant: at initial diagnosis

1st

BP Control v

plus

Lipid control v

plus

Lifestyle changes v

plus

smoking cessation v

plus

stratified glycaemic management v

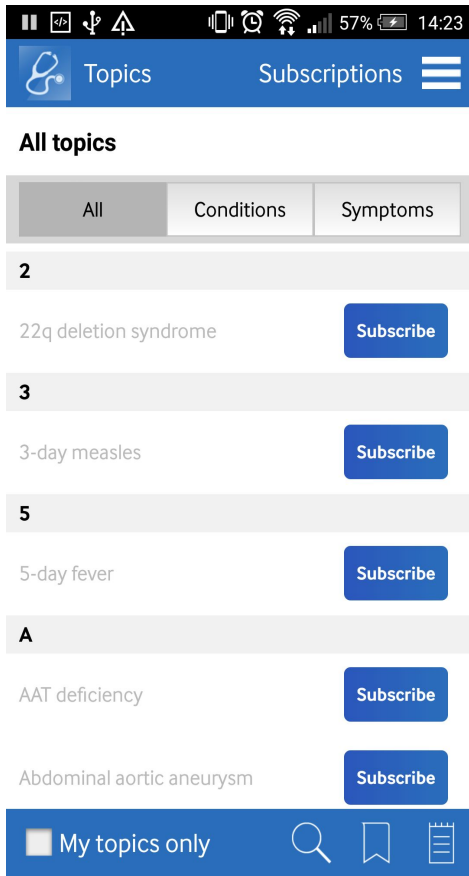
adjunct

antiplatelet therapy v

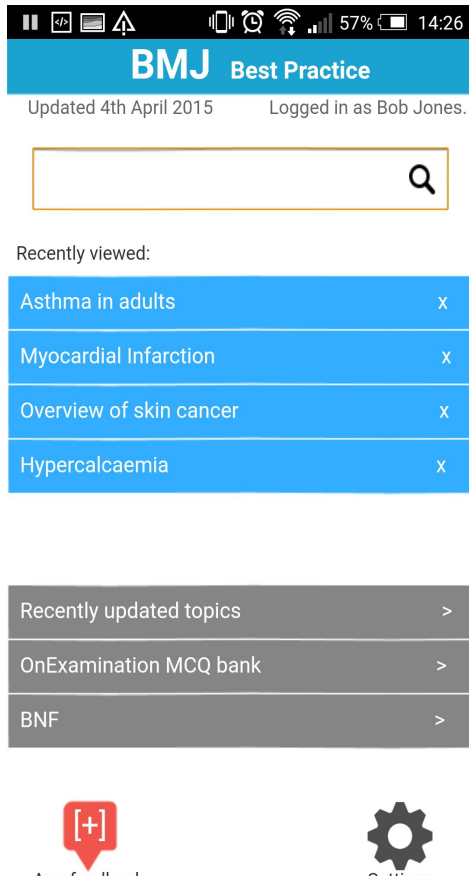


Users told us they wanted an app that:

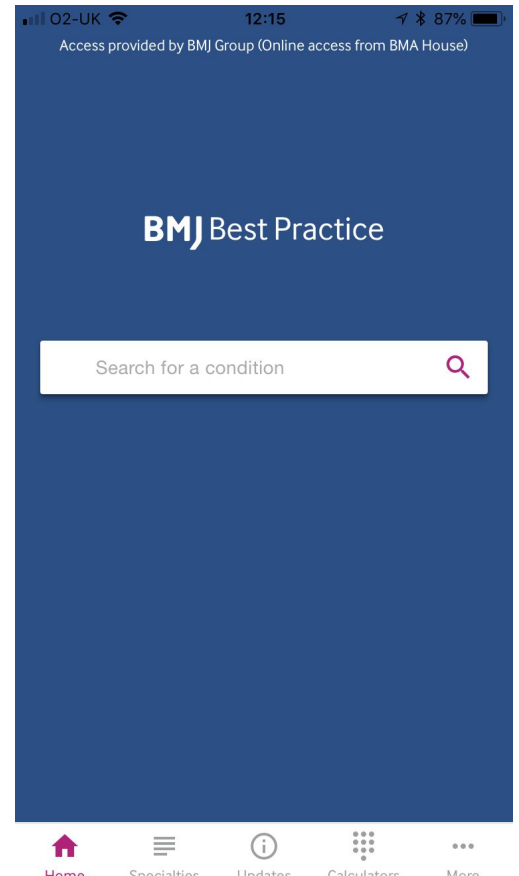
- ❖ Is quick to download
- ❖ Has minimal storage requirements
- ❖ Has full offline functionality
- ❖ Updates in the background
- ❖ Distraction-free interface and great search
- ❖ Provides fast access to content
- ❖ Records activity for CME/CPD purposes



Old app



Prototype



Latest version of new app

Project New BP app

The technical innovation

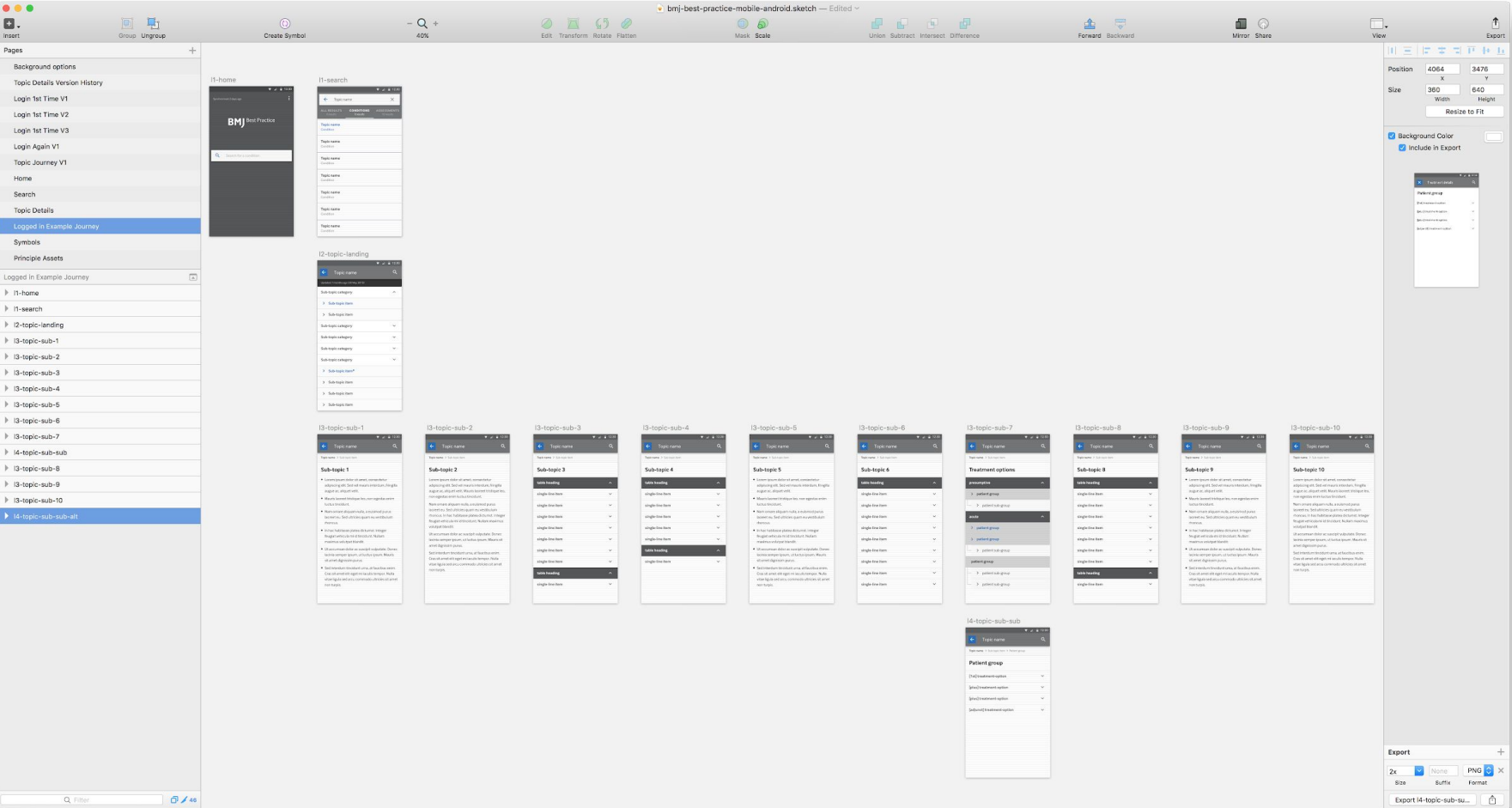
Tom Houdmont | Solution Architect - Box UK | tom.houdmont@boxuk.com

- ❖ 1000+ clinical topics
- ❖ 4,000+ medical images
- ❖ 6000+ clinical guidelines
- ❖ 65,000+ references
- ❖ 700+ Cochrane Clinical Answers
- ❖ 250+ medical calculators
- ❖ 3,000+ patient treatment groups, and 12,500+ sub-groups

Offline: anywhere/anytime

Quick answers: under 1 min

Patient safety: Provide correct information in a clear manner

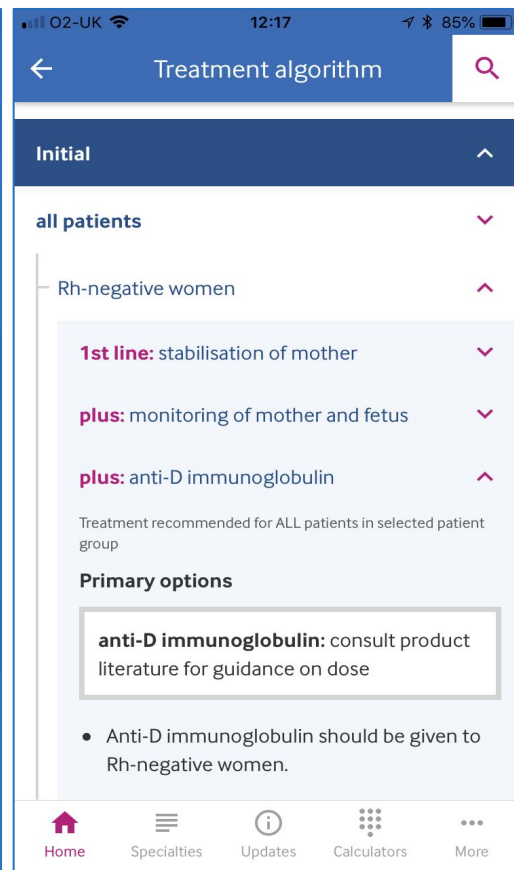
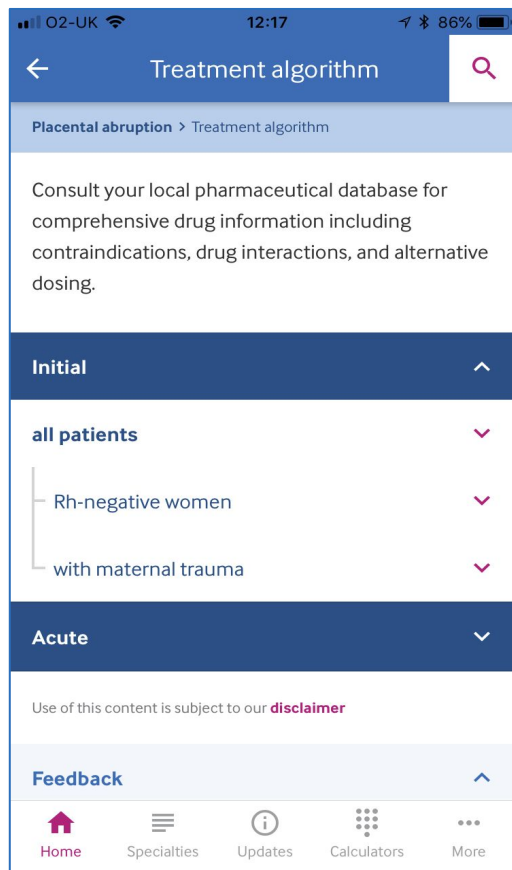


❖ 40+ design prototype stories

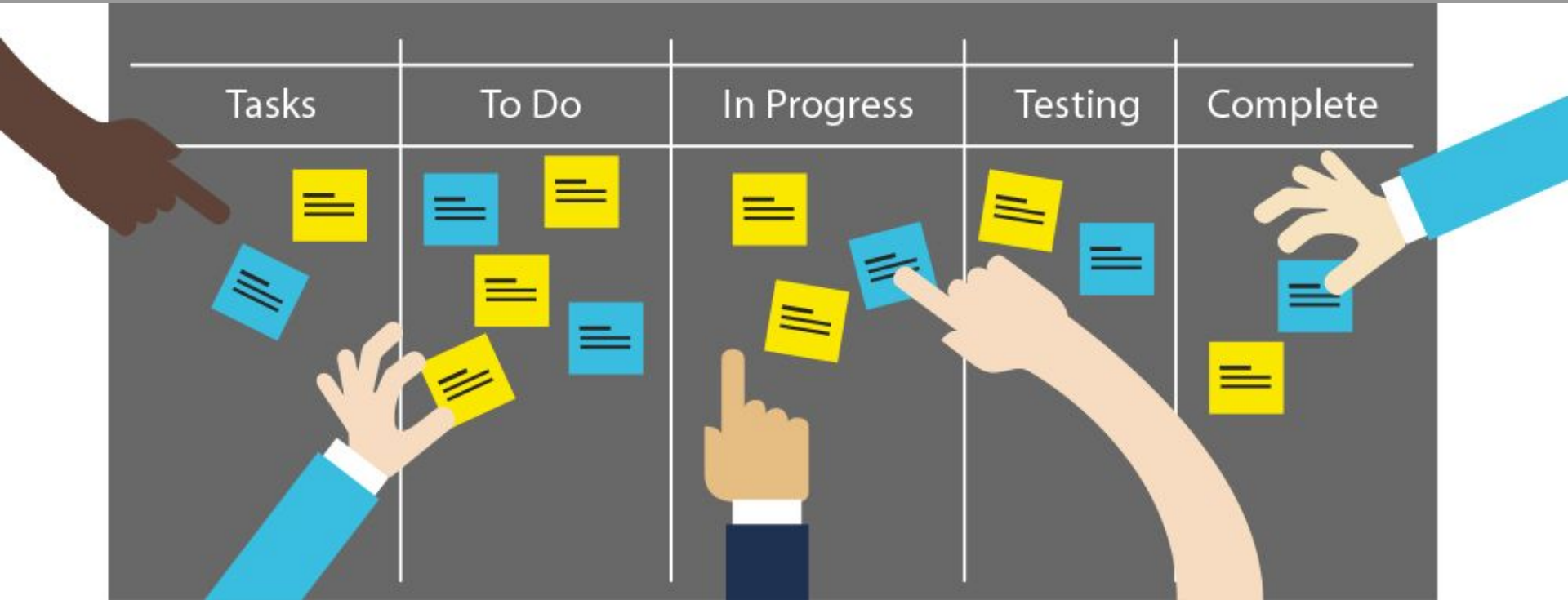
❖ 400+ stories overall

❖ 6 Sprints (12 months)

❖ 4 months treatment algorithm

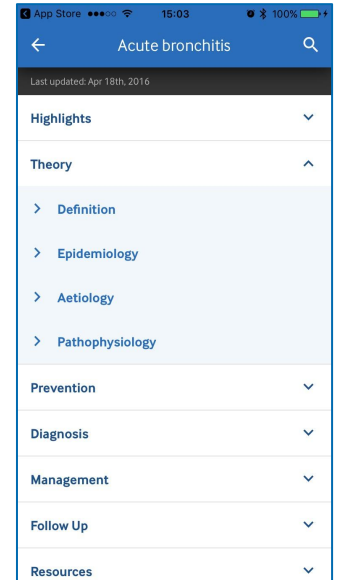
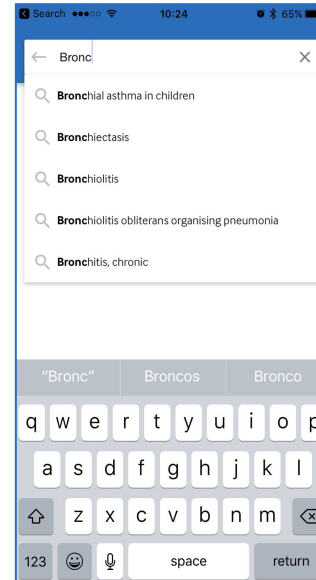
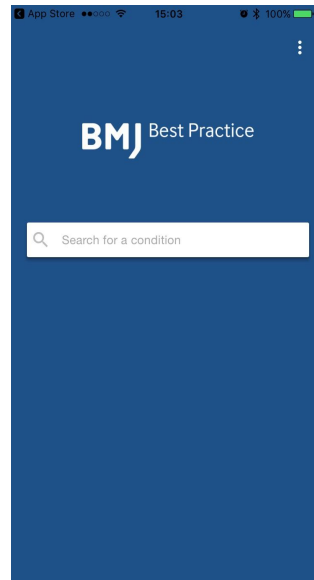


Agile methodology



“Team work”

“Collaboration”

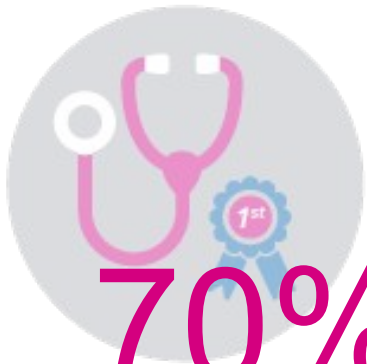


- ❖ Hybrid mobile web app
- ❖ Multiple platforms
- ❖ Ionic and Angular frameworks
- ❖ Components
- ❖ Optimised for speed and offline

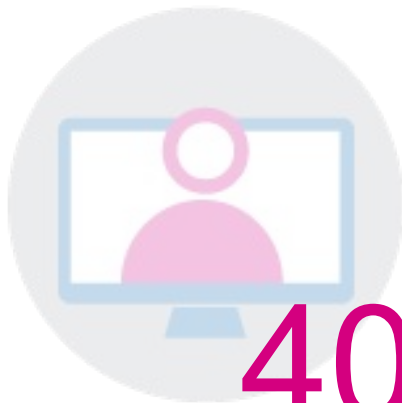
Quick development

Quick deployment

Quick releases



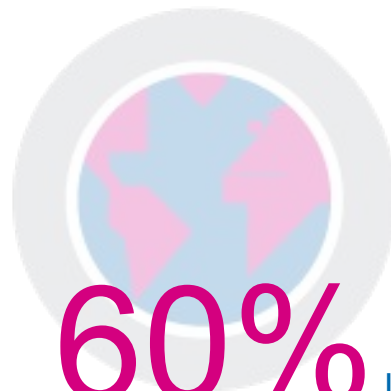
70% faster



400MB storage



<4 mins download time



60% less storage

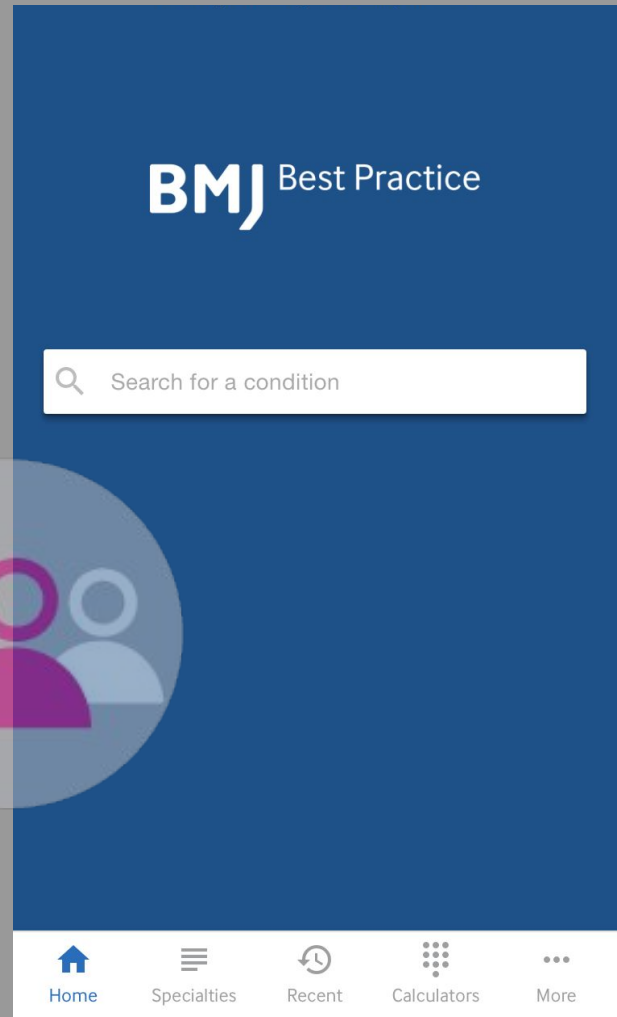
Project New BP app

Post-launch

40,000+ health professionals

90%+ global reach

5 languages



Best second opinion support tool ★★★★★

by DrJOTAW

This is the best mHealth decision support tool I have found.
It links to Cochrane evidence too.
Highly recommended for clinicians and academics alike.

Very helpful ★★★★★

by fpodd

Good tool for medical students on the ward, particularly as it's all available offline

Dr Karen Benson ★★★★★

by Doc KB

Fabulous resource for busy doctors



Dr.Nada Darwish 5 Apr 2018 at 11:40 1 0

★★★★★

Very useful I can use it anywhere and anytime



8 Mar 2018 at 21:54 0 0

★★★★★

helpful and awesome



25 Mar 2018 at 07:39 0 0

★★★★★

I love it



Mohamad Hussein 6 Mar 2018 at 15:25 0 0

★★★★★

Wonderfull



Farzan Safi 1 Mar 2018 at 19:33 1 0

★★★★★

Great app for medical staff, students and drs.



Mohammed Mujalled 26 Mar 2018 at 11:21 0 0

★★★★★

Very lovely and useful for physicians



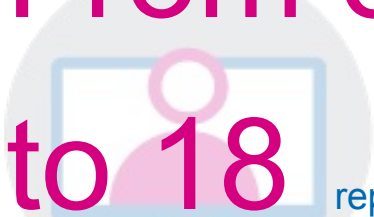
Andrew Hajewskyj 5 Apr 2018 at 15:21 1 0

★★★★★

Absolutely Fantastic Resource. As a junior physician associate I refer to this at least 2-3 times a day to check my diagnostic or treatment approach is correct.



7x more users on average



From 3250 reported crashes
to 18 reported crashes



From 2,000 users a month



Over 30k downloads in the past year

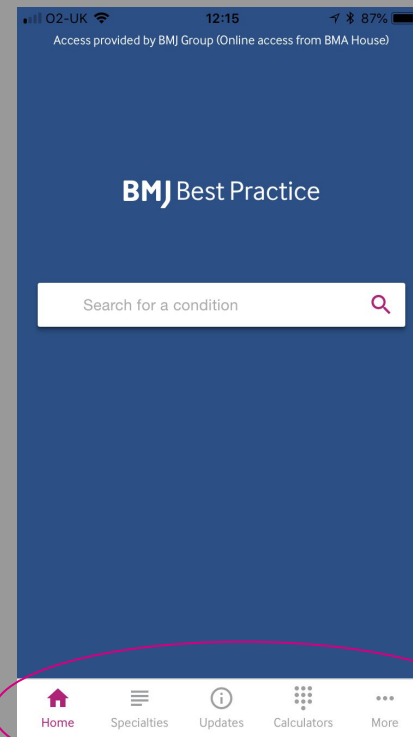
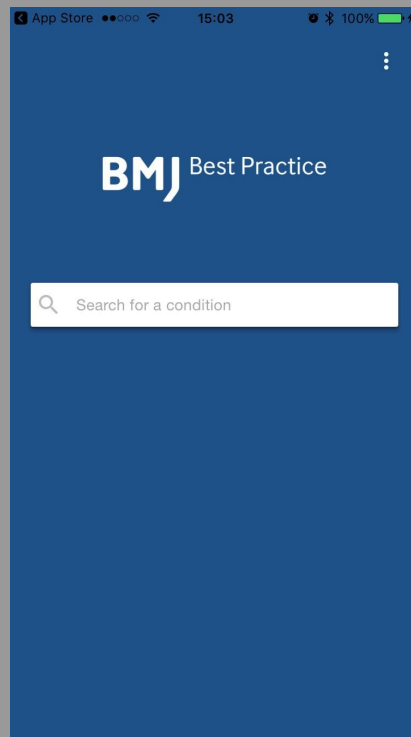
to 15,500 users a month



From 2 to 4.7 app store rating

(May 2018)

Continuous improvements



Bad design but excellent contents ★★★★★

by F0cus5 – May 20, 2017

[Edit Response](#)

Could the designer give back the category of diseases ? Only search bar there, it could be challenged to choose the key right words. Font should be adjusted in iPad either.

← **Developer Response** - Jun 9, 2017

Thank you for your feedback. I'm happy to report that the ability to browse by specialties will be added to the app in June. If you have any other comments, or would like to provide some more details on the iPad font size, please don't hesitate to contact me. Elin, Product manager - BMJ Best Practice (egoodwin@bmj.com)

Main takeaways

- ★ Continuous improvement
- ★ Show you listen to feedback
- ★ Build relationships
- ★ **TEST!** Ensure it still meets user needs
- ★ **INNOVATE!** Build something complex simply
- ★ Keep the app agile
- ★ Team work



FROM THIS:



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TO THIS:



Ainara Scott August 17, 2017



The best thing ever created. Fantastic format for learning about all the different conditions, presentations, examinations and management.



Thank you

Any questions?

Elin Goodwin | egoodwin@bmj.com | [@elliejs82](https://twitter.com/elliejs82)