Contents

Volume 7 Issue 1 | BMJ Innovations January 2021

Editorial
1  Call to action for the BMJ Innovations community after COVID-19
   A McKimm

Discussion
3  Will COVID-19 be the coming of age for point-of-care testing?
   C P Price, A St John

6  Integrative clinical, genomics and metabolomics data analysis for
   mainstream precision medicine to investigate COVID-19
   Z Ahmed, S Zeeshan, D J Foran, L C Kleinman, F E Woudsford, X Dong

Diagnostics
11 Postmortems on diagnostic testing start-ups: reports of commercial successes and
   failures and the case of the Zombie life science company
   J Pealbody, T Burgon, D Pascallo, O Ounenes, E de Belen, M Richey, R M Thayer, M Urlea

18 Oregon’s approach to leveraging system-level data to guide a social determinants
   of health-informed approach to children’s healthcare
   C P Reuland, J Collins, L Chiang, V Stewart, A C Cochran, C W Coon, D Suhde, D Hargunani

26 Can non-invasive features including limited joint mobility be used to predict glucose
   control?
   S Ramrouch, A Dhanoe, B Cockburn, A Joshi

Medical devices
33 Discrepancy in the physical dimensions of nose and continuous positive airway pressure
   (CPAP) interface: a possible reason for high rates of nasal injury in Indian neonates
   J S Dalal, S K Ajmera, K Prajapati, T Sahoo, C P Yadav, P V M Rao, A Thakar, A Thukral,
   M J Sankar, A K Deorani, R Agarwal

40 Design, development and evaluation of Artificial Breathing Capability Device
   (ABCD): a novel innovation for respiratory support
   J L Mathew, M Sharma, A Gawri, Sukesha, N Kumar, A Chander, P J Mathew

47 Interdisciplinary development and evaluation of a novel needle guide for ultrasound-guided
   lumbar epidural placement
   R Singla, C Burriston, S Honigmann, P Abdulmaassum, A Chau, R Rohling

53 Assessment of postoperative gastrointestinal motility in colorectal surgery: a study with the
   Motilis 3D-transit system
   J Nors, M W Kline, T Sommer, S Laurberg, K Krogh, J A Fosman

Health apps and mHealth
61 Implementation and evaluation of a pilot Match-A-Nurse programme to provide
   home-based care in Singapore
   S B Ang, S Neo, B Koh, S J Cheng, I Tan, J Thumboo, L G H Goh, S S Dhalial

68 Examining the impact of an asynchronous communication platform versus existing
   communication methods: an observational study
   M Jhala, R Menon

75 Using a pharmacist-led mHealth to improve patient’s adherence of antidepressants:
   patients’ experiences in low resourceful country
   M Amir, Z Perez, A E Beg, N Rickles

MORE CONTENTS ►
81 Building a master health facility list: innovative Indian experience
   A Mishra, S Sahay

87 Patient and nurse perceptions of an innovative TV wellness channel in an acute medical ward: a feasibility study
   S Russell, V Ripley, R Elliott, C Barnes

103 Healthcare hackathons: fostering medical education through innovation in a developing country: a case study from Pakistan
   W A Butt, Q Shahood, W H Farooqi, K Ghass, S Sabzwari, A Mian

109 Evaluation of Secure Mobile and Clinical Communication Solution (SMaCCS) across acute and community practice settings
   S P Spina, K M Atwood, P Loewen

117 The Mass Knee Clinic: a new NHS outpatient care model showing clinically led transformation in practice
   L Li, S Nahas, R Jando, S Williams, H P Lionel Gawippa, R Bhattacharya, D Nazbhawi

123 Patient access to gene therapy medicinal products: a comprehensive review
   M Carvalho, B Sepedes, A P Martins

135 Virtual online consultation platforms for secondary care: a review of the options
   N Shah, A Thakrar, S Viswanathan, S Thamban

141 Massive open online course for type 2 diabetes self-management: adapting education in the COVID-19 era
   S C Mackenzie, K M Cumming, D Garrell, D Brodie, I. Wilson, S Mehrar, S G Cunningham, A Bickerton, D J Wake

148 Coassessment framework to identify person-centred unmet needs in stroke rehabilitation: a case report in Norway

157 Innovating organ delivery to improve access to care: surgeon perspectives on the current system and future use of unmanned aircrafts
   T Talae, S Niederhaus, E Villalongas, J Scalea

164 Is hackathon in oncology a plausible way to foster innovation? An experiential narrative account of conducting Hacking Cancer
   S Lewis, C R Rao, P A Shenoy, N Salins, R Viveganandan, A Shanbhag, C Mukhopadhyay, K Prabhu, S K Rao

175 Silent operating theatre optimisation system for positive impact on surgical staff-members’ stress, exhaustion, activity and concentration in urological da Vinci surgeries
   I Meyer-Lamp, M Boos, L S Schugmann, C Leitsmann, I Trojan, M G Friedrich

185 Eccentric cycling ergometer to address skeletal muscle dysfunction in hospitalised patients: ergometer design, construction and demonstration
   M Doyle, M Brown, I. Kemp, P McLennan, G Peoples
192 Comparing ‘Twitter’ polls results with an online survey on surgeons perspectives for the treatment of rectal cancer

199 Developing a globally applicable cybersecurity framework for healthcare: a Delphi consensus study
N O’Brien, E Grass, G Martin, M Durkin, A Darzi, S Ghafur

Reviews
208 Are disruptive innovations recognised in the healthcare literature? A systematic review
V Sounderajah, V Patel, L Varatharajan, L Harling, P Normahani, J Symons, J Bartow, A Darzi, H Ashrafian

217 Communication tools in the COVID-19 era and beyond which can optimise professional practice and patient care

224 Ethical, legal and administrative implications of the use of video and audio recording in an emergency department in Ontario, Canada
S L Douglas, A McRae, L Calder, M de Wi, M L A Sivilotti, D Howes, S C Brooks, A Szulewski

Letters
231 MIT COVID-19 Datathon: data without boundaries

235 Clinicians embracing social media in the response against COVID-19
Y Farid, R D Di Siate, H Chorab, A Kapila, C Lombardo, L D’Uva

237 Smartphone ophthalmoscopy: a potential way forward for non-ophthalmology medics in the COVID-19 era
M Nagra, A Konstantopoulos, S Pardhan

240 Emerging from the first COVID-19 wave: archetyping the new NHS ophthalmic waiting room
G K Loh, M Bhalla, L Ak-kye

243 Will the COVID-19 pandemic boost access to personal health care records? Smartphone data access to tackle the modern pandemic
C E Breeze, C Murkin, M Lechner

Video feature
245 TT-Topper: a low-cost infection barrier for tracheostomies
G Gomez, S Thomas, K Zachariah