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Remote consultations to monitor asthma in primary care

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Images: Capio Ringen Health Care Center, The IPCRG, and pxhere.com



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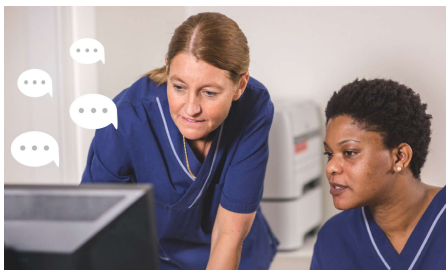
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Background



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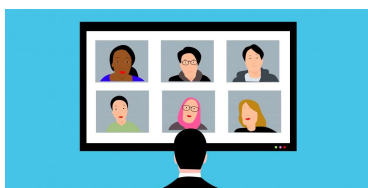
- The COVID-19 pandemic has led to a substantial switch of primary healthcare delivery from a face-to-face to a mainly remote digital service.
- The future implications are not well defined.



Method



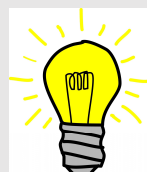
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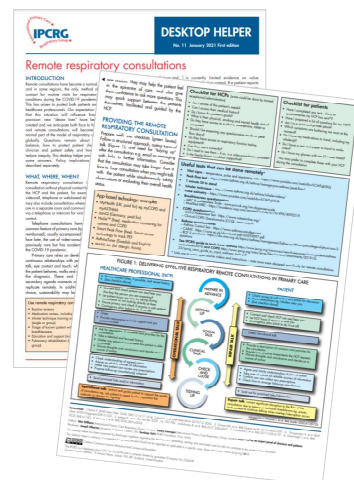
The International Primary Care Respiratory Group (IPCRG):

GLOBAL PANEL of primary care clinicians, academics and patients (17 people)

INSIGHT GENERATION



- Literature search
- Questionnaire
- 3 virtual experience-led care meetings
- Email communication

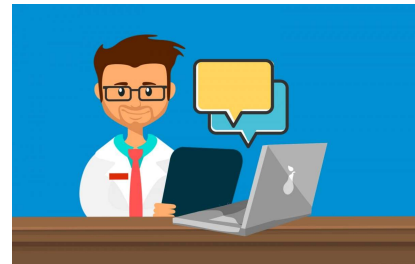


Key topics



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- Where do remote consultations fit in primary healthcare?
- Remote asthma care during the Covid-19 pandemic
- Practicalities, new skills and data protection
- Motivational aspects
 1. Patient choice and staff satisfaction
 2. Reimbursement
- Opportunities associated with information systems
- Risks for social/digital exclusion

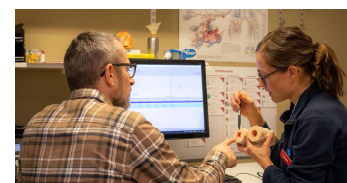


Where do remote consultations fit in primary healthcare?



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- Challenges in providing face-to-face healthcare to remote and rural locations
- Need to minimise the risk of viral transmission during face to face contact
- Need to find the shortest or most easily navigated route to health care – “Desire lines”



Bynum et al 2001, (Kielmann et al 2010; Pinnock et al 2005; Thiagarajan et al 2020; Smith and Walters 2017)



Remote asthma care

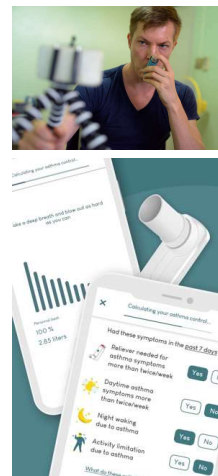


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Useful tests that can be done remotely*

- **Vital signs** – temperature, pulse and respiratory rate - <https://www.youtube.com/watch?v=YCWTqKilhQ>
- **Peak flow test** – <https://www.asthma.org.uk/advice/manage-your-asthma/peak-flow/>
- **1 minute Sit to stand**
- **Inhaler technique** – <https://www.asthma.org.uk/advice/inhaler-videos/>
- **Pulse oximetry** – <https://www.youtube.com/watch?v=YCWTqKilhQ>
- **Breathlessness questionnaires**
 - MRC Breathlessness Scale - www.pcrs-uk.org/mrc-dyspnoea-scale
 - Modified MRC - <https://academic.oup.com/occmed/article/67/6/496/4095219>
- **COPD questionnaires**
 - COPD Assessment Test - <https://www.catestonline.org/>
 - Clinical COPD Questionnaire (CCQ) - www.ccq.nl
- **Asthma questionnaires**
 - Asthma Control Test - <https://www.asthmacontroltest.com>
 - CARAT - <https://core.ac.uk/download/pdf/62692897.pdf>
 - RCP 3 questions - <https://cks.nice.org.uk/topics/asthma/management/follow-up/#the-royal-college-of-physicians-3-questions>
- **See IPCRG guide to tools here: asthma** <https://www.ipcr.org/resources/search-resources/users-guide-to-asthma-control-tools-2016> **and COPD** https://www.ipcr.org/sites/ipcr.org/files/content/attachments/2019-10-23/ipcr_users_guide_to_copd_wellness_tools.pdf

* Links are to some open source videos and instructions – note none were designed specifically for remote consultations



IPCRG Desktop helper Nr 11: Remote Respiratory Consultations. <https://www.ipcr.org/dth11>; Ljunberg et al 2019

Practicalities, new skills, and data protection



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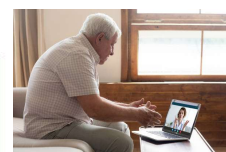
Checklist for HCPs (some could be done by trained receptionist/administration)

- Am I aware of this patient's needs?
- Can I access their medical history?
- Do I know the patient's goals?
- What is their physical, smoking and mental health status?
- Do they have access to a phone, smartphone, tablet or computer?
- Should I be expecting any questionnaire results or peak flow diary?
- Do they have access to respiratory function testing equipment?
- Can they use it correctly?
- Do I need to see them – if so, is a video-consultation possible?
- Is the family/home condition supportive?

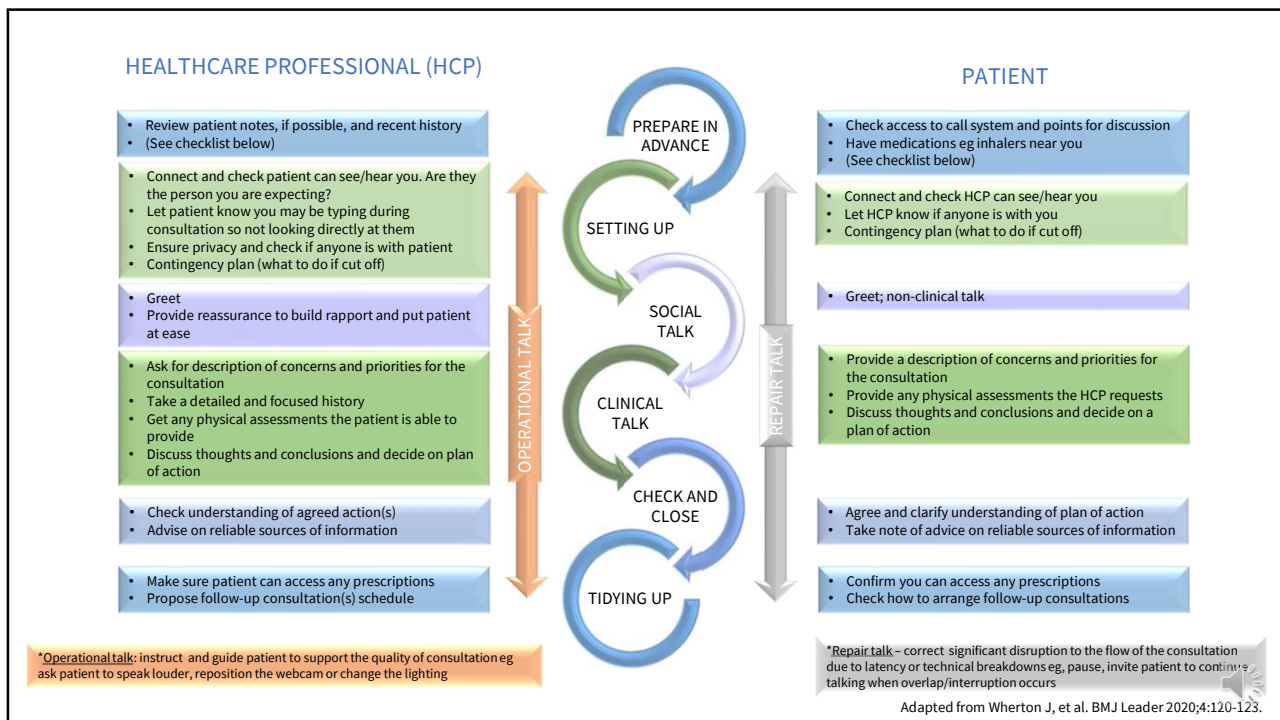
Checklist for patients

- Have I completed any tests, diary or questionnaires my HCP has sent*?
- Have I prepared a list of questions for my HCP?
- Am I in a quiet and private place?
- Which symptoms are bothering me most at the moment?
- Do I have my medications to hand, including my inhaler(s)?
- Do I have a pen and paper to hand to make notes?
- Do I have my glasses with me (if I need them)?

*You may prefer to complete these with your HCP during the consultation



IPCRG Desktop helper Nr 11: Remote Respiratory Consultations. <https://www.ipcr.org/dth11>; Iyengar et al 2020



Motivational aspects

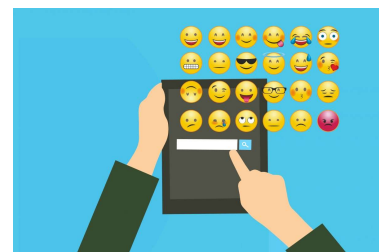


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1. Patient choice and clinician satisfaction

Patients:

- Cultural and organisational context
- Personal experience
- Finances
- Levels of general health (including loss of hearing or sight)
- Availability of technology and technological literacy
- Continuity in patient-clinician relationship



Murphy and Salisbury 2020



Motivational aspects



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1. Patient choice and clinician satisfaction, cont.

Clinicians: challenges lead to ***cognitive and ethical stress***:

- Insecurity about the validity of clinical assessments Concerns about patient safety
- Loss of clinical skills
- Loss of human contact
- Loss of identity as a clinician
- Takes longer than face-to-face
 - Technical issues
 - Less use of routines of face-to-face consultations



Fernemark et al 2020; Hyman 2020; Cayley 2014; Heisey et al 2011; Jackson 2005; Iyengar et al 2020



Motivational aspects



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2. Reimbursement

- Most countries: remote consultations are perceived as an overhead cost, not the norm
- Needs of reimbursement:
 - All patient contacts
 - Universal access
 - Did-not-attend rates
 - Skill mix
 - Workforce
 - Technology and support



Wherton et al 2021



Opportunities associated with information systems



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- The technology should be integrated in a wider administrative and clinical workflow
- New routines needed:
 - Scheduling
 - Flagging of the appropriate consultation method
 - Check-in, waiting
 - Language needs
 - Home monitoring equipment
 - Note-taking
 - Results

Potential to improve coordination of asthma care

- Shared electronic records
- Triaging patients with exacerbations
- Personalized action plans
- Support medicine use
- E-prescriptions

Wherton et al 2020 and 2021



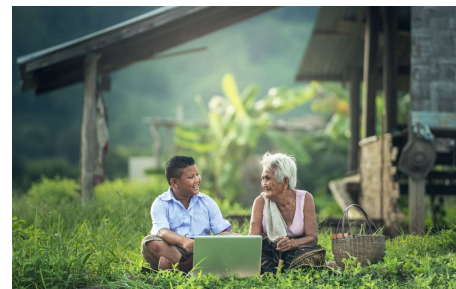
The potential for social/digital exclusion



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Inequalities:

- Young and old patients
- Rich and poor countries



Majeed et al 2020



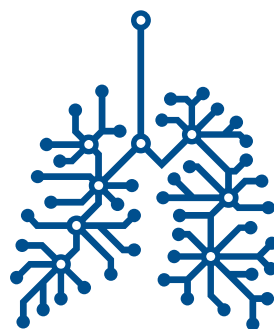
Conclusions



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Successful remote asthma care requires:

- Right preferences, clinical requirements and resources
- Skill mix and training strategies for clinicians
- Integrated information and decision-support systems
- Appropriate reimbursement
- Community engagement
- Digital education for patients



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