



**ERS** EUROPEAN  
RESPIRATORY  
SOCIETY

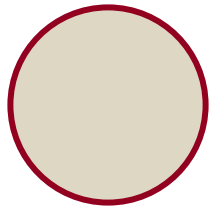
every breath counts

# How to care for and communicate with patients digitally

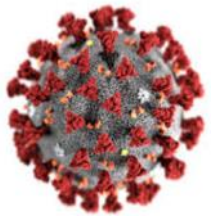
Professor Hilary Pinnock  
Usher Institute, University of Edinburgh  
GP, Whitstable Medical Practice



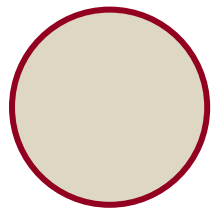
# How to care for and communicate with patients digitally



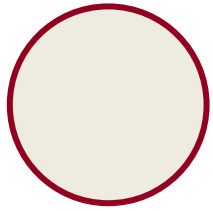
Evidence: Digital communication and remote consultations



The context and reorganisation of care



Practical implications: Maintaining care in a pandemic



# The consultation

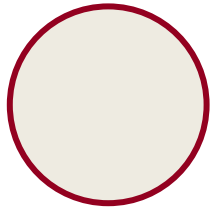


To consult:

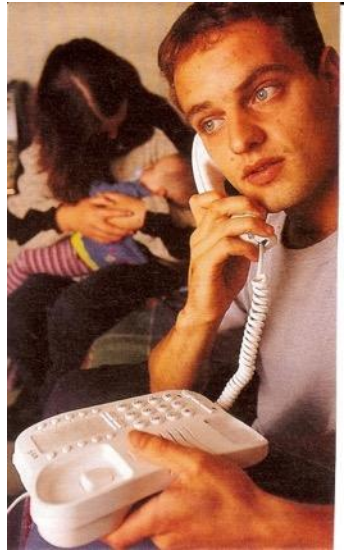
“Seek information or advice from..”

“To take counsel”





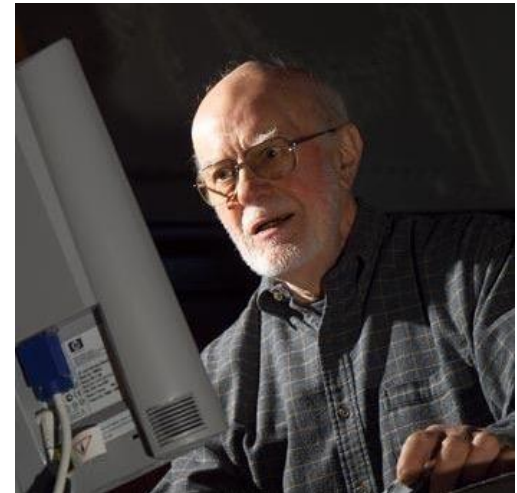
# The consultation

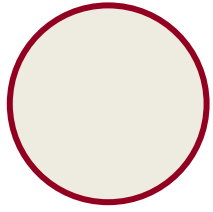


To consult:

“Seek information or advice from..”

“To take counsel”





## The consultation

"This trial proved that it is now possible for a specialist, say, in London, to examine a patient, say, in the country, stethoscopically, and to arrive at a correct diagnosis."



Alexander Graham Bell



1879: Diagnosis of croup

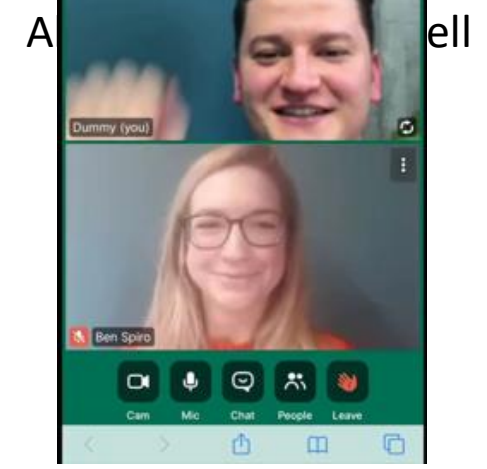
Anonymous. Practice by telephone. Lancet 1879; 29 Nov: 819

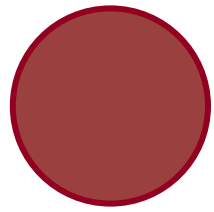
# The World's first camera phone



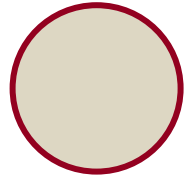
Chris Madden

It'll never catch on

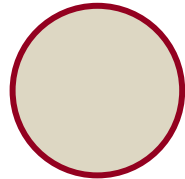




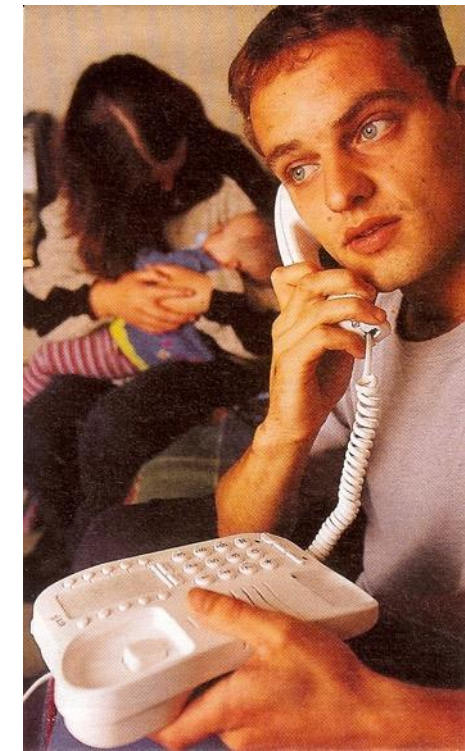
# **Evidence:** Digital communication and remote consultations

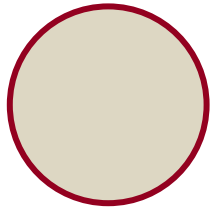


Remote consultations for **acute care**



Remote consultations for **routine reviews**





# Remote consultations for acute care



## Out of Hours services

**65%** calls managed by telephone (UK)

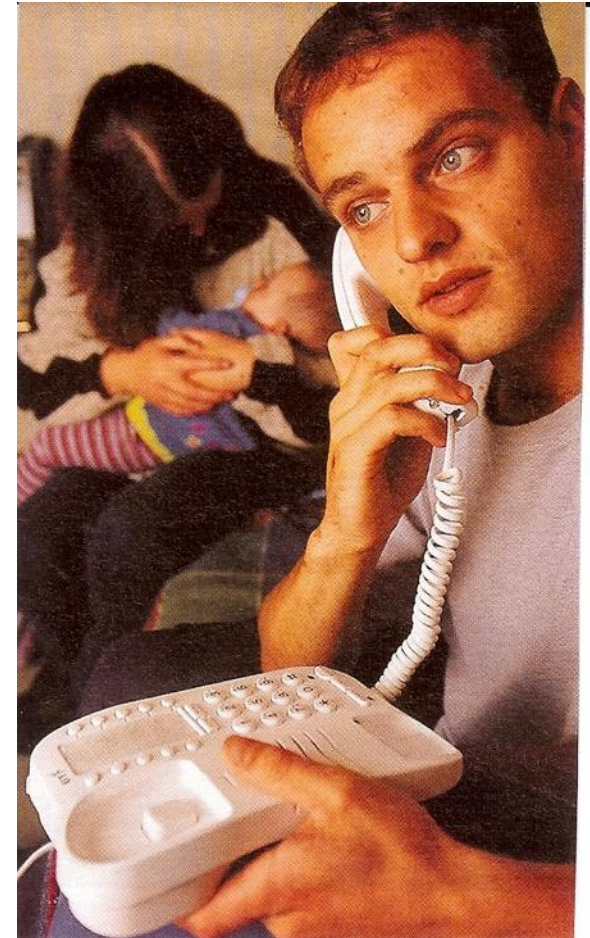
Lattimer et al. OOH service in UK. BMJ 1998; 317: 1504-9

**48%** calls managed by telephone (Denmark)

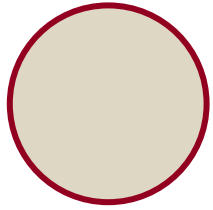
Christensen et al. OOH service in Denmark. BMJ 1998; 316: 1502-5

**80%** calls managed by telephone (US)

Poole et al. After hours telephone coverage. Paediatrics 1993; 92: 670-9







# Remote consultations for acute care

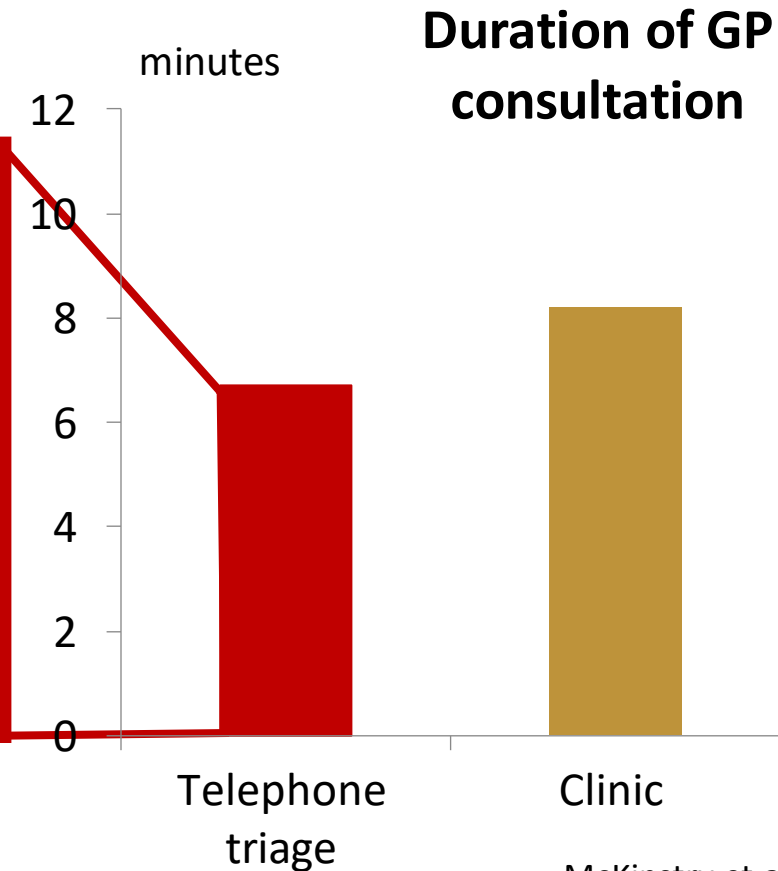
## Primary care

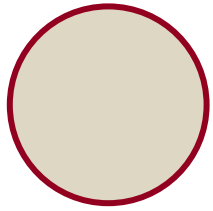
RCT: 388 patients attending their GP practice for a same day appointment



Triage group had more clinic consultations over the next 2 weeks

Telephone triage took less time on the day despite 50/190 of the triaged patients being seen face-to-face later in the day





# Remote consultations for acute care

## Primary care

Fewer problems / consultation

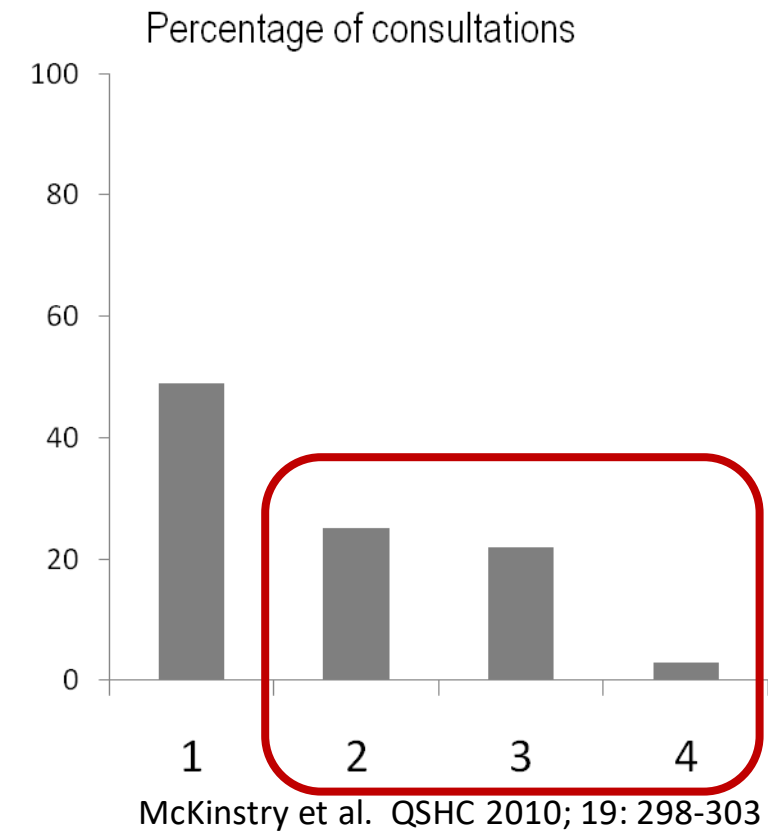
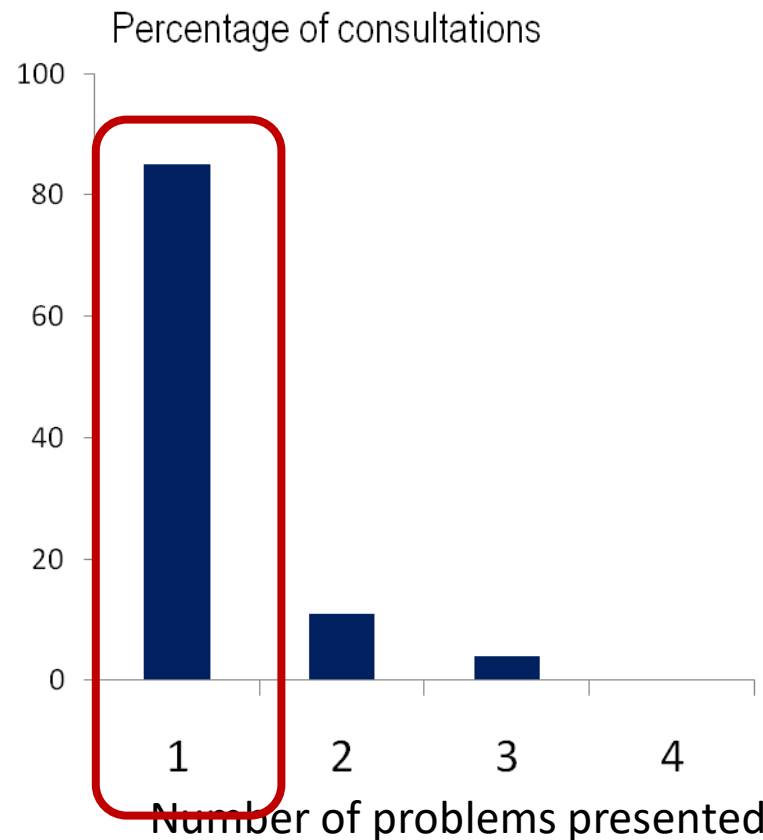
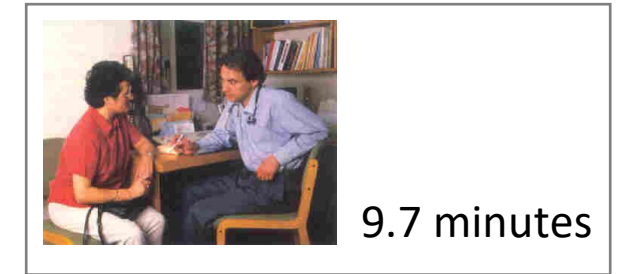
- RIAS**
- Less data gathering
  - Less education/counselling
  - Less rapport building
  - Less partnership building
  - Less direction giving

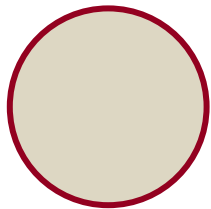


## A&E callers

*“most studies found the assessment of callers’ problems was inadequate”*

Crouch R et al. *Nursing Standard* 1998; 12: 33-39





# Remote consultations for routine reviews

## Primary care



*"[The telephone is] convenient. If you have a problem with your asthma you make an appointment at the doctors" [29 F]*

*"A routine telephone check would be reassuring and any questions could be asked. But for specific new symptoms the face-to-face meeting is preferred" [78 F]*



Pinnock H, et al. *Prim Care Respir J* 2005; 14: 42 -46



≡ miniAQLQ



-10.7mins

-£3.92

278 adults with asthma

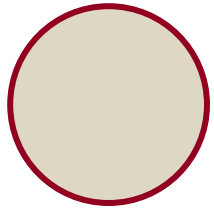


**74%** reviewed



**48%** reviewed

Pinnock H, et al.. *BMJ* 2003; 326: 477-479



# Dramatic re-organisation of how we deliver care



**24 GP partners based in one of the centres**  
**Personal lists of  $\approx$  2,000 registered patients**

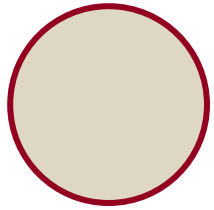


3 centres each with nursing and admin teams

'Respiratory clinics' and  
spirometry on each site.  
X-ray facilities on one site



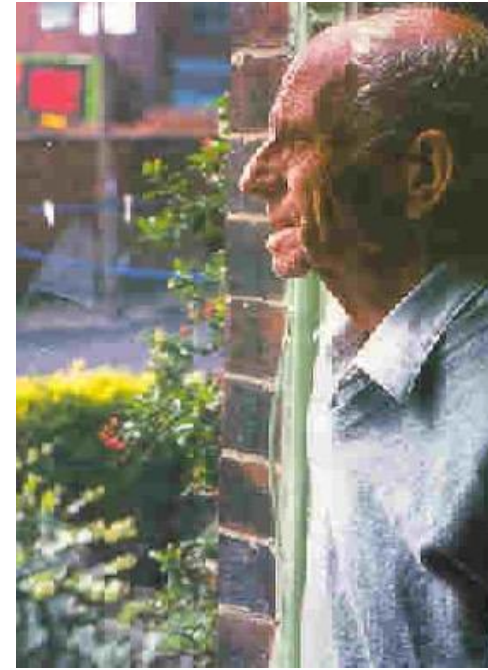
**Mainly face-to-face consultations with telephone option**



# Dramatic re-organisation of how we deliver care

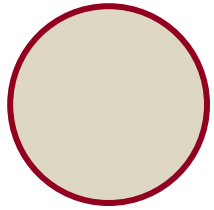


← Safe consulting



Shielding

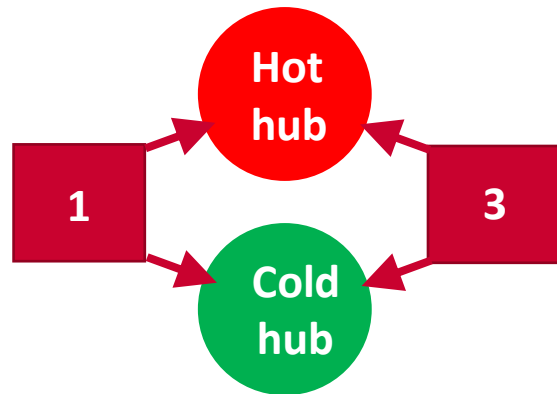




# Dramatic re-organisation of how we deliver care



Hot and cold zones within a practice



Hot and cold hubs acting as referrals centres for several practice



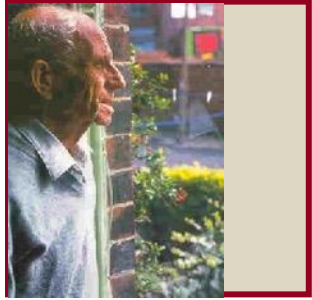
Dedicated home visiting service

*“Our hot site [is] where we will only see patients with respiratory symptoms. [...]”*

*Therefore, that has made all our other sites what we call cold sites, where we are not seeing respiratory symptom patients.*

*So then we minimise that risk for patients who have got non-respiratory type symptoms.” (GP, Practice-6)*

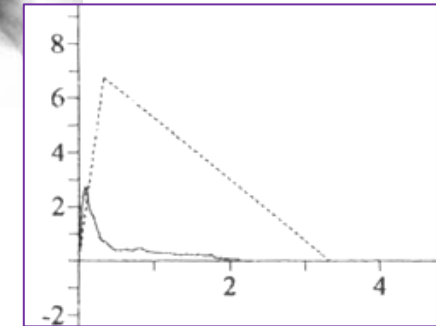
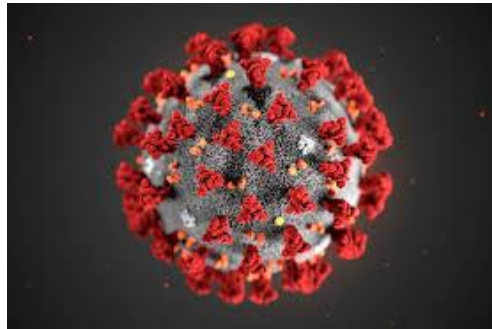
Turner et al. DOI: <https://doi.org/10.21203/rs.3.rs-301281/v1>



# Cough + breathlessness



## COVID-19, lung cancer or COPD?



### Acute onset of:

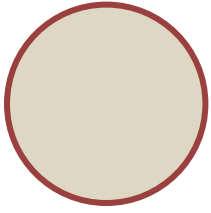
- Dry cough
- Breathlessness
- Fever / myalgia / fatigue
- Loss of smell ?Loss of taste
- Contact of COVID-19

### Unclear onset of:

- Persistent cough
- Persistent breathlessness
- Fatigue of >4 weeks
- Haemoptysis/weight loss

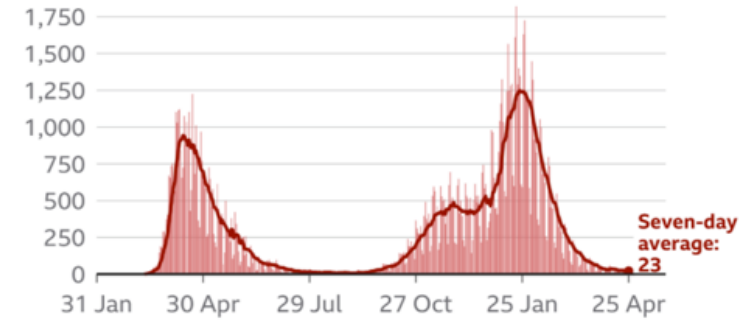
### Acute worsening of

- Cough
  - Breathlessness
- But remember pneumonia:
- Green sputum
  - Fever, rigors, malaise
  - Stabbing pleuritic pain



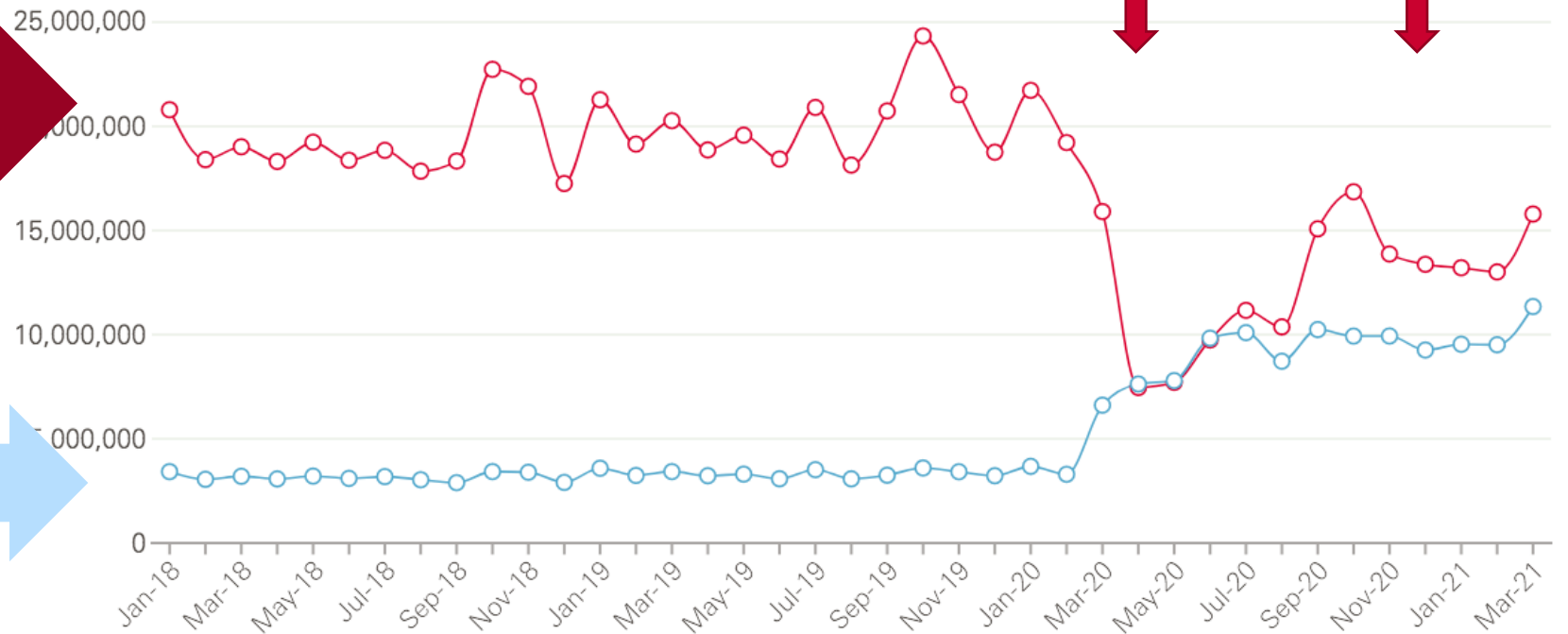
# Remote consultations and maintaining care

UK daily reported deaths with coronavirus



Monthly number of face-to-face and telephone appointments

■ Face to face appointments ■ Telephone appointments



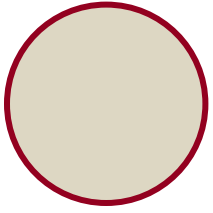
The Health Foundation  
© 2021

Source: [NHS Digital, Appointments in General Practice 2021](#)

<https://www.health.org.uk/news-and-comment/charts-and-infographics/how-has-the-covid-19-pandemic-impacted-primary-care>







## Remote consultations and maintaining care

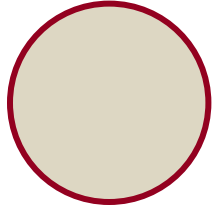


*'Working from a long screen of lots of telephone calls... .. and having then also removed what many GPs find the most enjoyable part of their job — talking and touching and sensing patients in the room — the day job has become a bit of a hard grind.'* (GP, HC20, Round 2)



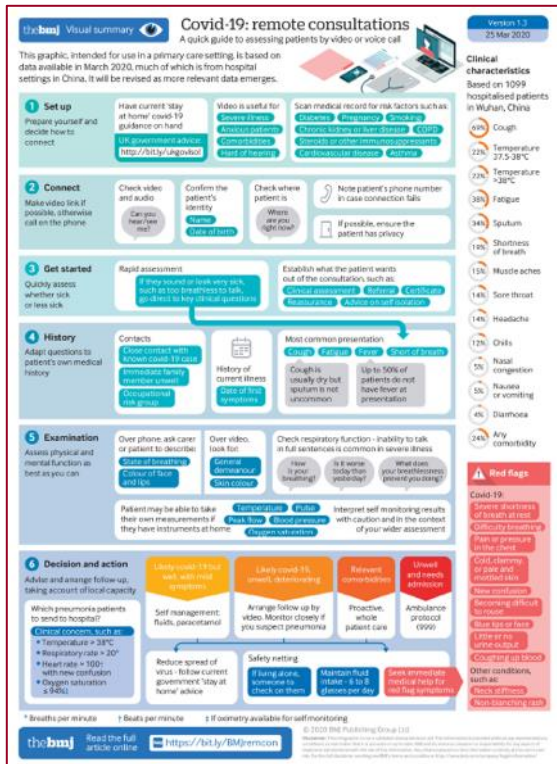
*'I hope we'll never go back to just whole mornings of patients booking by themselves....'* (GP, HC9, Round 2)





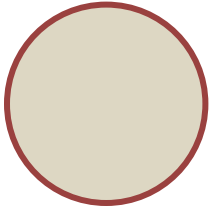
# Acute care

## Remote consulting in a Covid pandemic



Set up: prepare, background  
 Connect: check identity  
 Quickly assess severity/red flags  
 History  
 Examination: temp; BP; PF  
 Decision and safety net

# How do you assess breathlessness remotely?



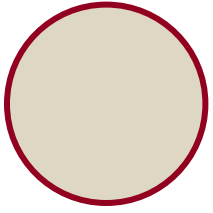
## Acute care

### Remote consulting in a Covid pandemic



- ✓ Ask the patient 'How is your breathing today?' (compared to yesterday/last week)
- ? Ask standard questions (MRC Dyspnoea score)?
- ✗ Roth score (Time how long how before the patient stops speaking to take a breath)
- ✓ Listen to whether the patient sounds breathless when they speak

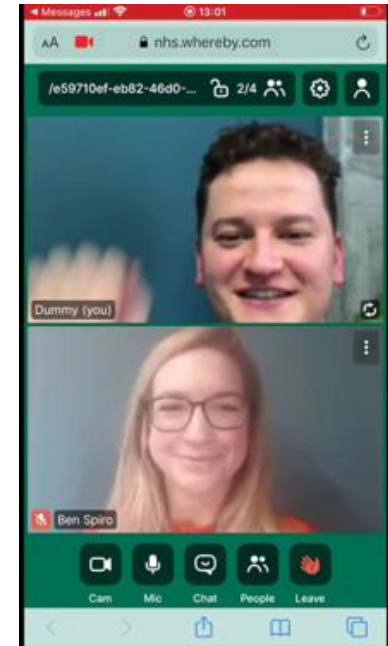
**How do you assess breathlessness remotely?**



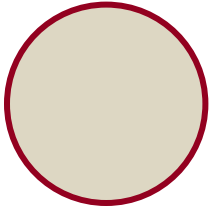
# Video-consulting

- \* **Setting up:** Checking the video/audio (unmuting)
- \* **Social talk:** Greeting, rapport building
- \* **Clinical talk:** Related to the condition and management.  
Summarise the key points clearly.
- \* **Operational talk:** Instructions (to enable examination)
- \* **Repair talk:** Correcting significant disruption

Wherton J, et al. *BMJ Leader* 2020;0:1–5.



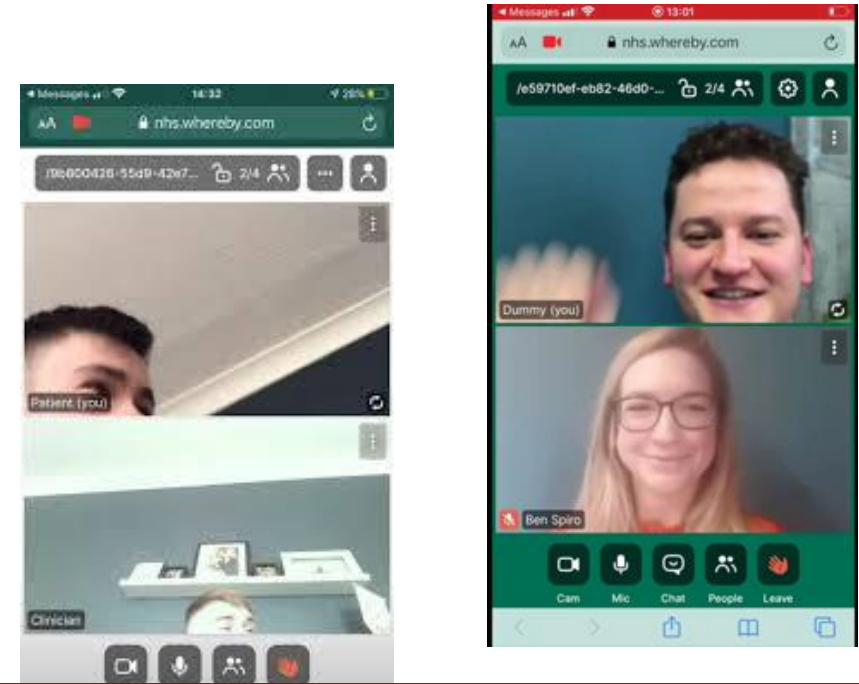
*‘The [verbal] description doesn’t always match up with the clinical picture and being able to actually have a look, that’s very helpful’. (GP, HC3, Round 1)*



# Video-consulting

- \* **Setting up:** Checking the video/audio (unmuting)
- \* **Social talk:** Greeting, rapport building
- \* **Clinical talk:** Related to the condition and management.  
Summarise the key points clearly.
- \* **Operational talk:** Instructions (for the patient)
- \* **Repair talk:** Correcting significant errors

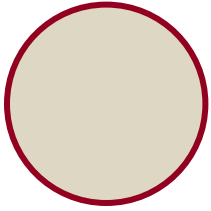
Wherton J, et al. *BMJ Leader* 2020;0:1–5.



*'I think the initial excitement about video consulting [...] there is quite a bit of faff around it and [...] there is not that much that it adds. (GP, HC20, Round 4)*

*'I kind of thought I would be doing more video by now, but [...] I'm still doing mostly phone. I want to feel more than see, mostly.'*  
(GP, HC8, Round 4)





# On-line and SMS consulting



→ Requesting photos

Request

Message text

Dear Name  
Following our recent discussion, please can you send me a photo of your red eye. I will phone you back when I have received the pictures.  
Thanks, Dr Pinnock

TO RESPOND, please follow this link: (link will autogenerate here)

Whitstable Medical Practice

339 characters remaining

Attach

Allow patient to respond with text or photos

Assign response (if none selected, response will go to you)

Click to search assignees

Send and save

Dr Pinnock Location: (unknown)

Record

View		Filter	Print	Config	Knowled...	Fit note
(1)	Tasks - 16	(2)				
cine Management						
this link to view.						
		Born			Gender	
Consultation Text						
12:15	Whitstable Medical Practice					
Comment	Patient mobile telephone number					
	SMS text message sent to patient					
	Dear					
	Following our recent discussion, please can you send me a photo of red eye. I will phone you back when I have received the pictures.					
	Thanks, Dr Pinnock					
	TO RESPOND, please follow this link: (link will autogenerate here)					
	Whitstable Medical Practice					
11:56	Telephone consultation (Whitstable Health Centre)					PINNOCK, Hilary (Dr)
History	Telephone encounter Sticky eye started 2 days ago + a red area on bottom lid. Eye is blood shot. Running ++. Vision is OK, except when eye is watering/sticky.					Text to request photo
2021	Docman					PCTI, docman (Mr)



Response

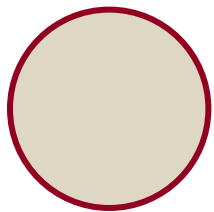
dm View

Patients waiting - 2

a. Patient has responded to you

View message

PDS PROXY



# On-line and SMS consulting



- ➔ **Requesting photos**
- ➔ **Send links** (e.g. to information, clips of inhaler technique)

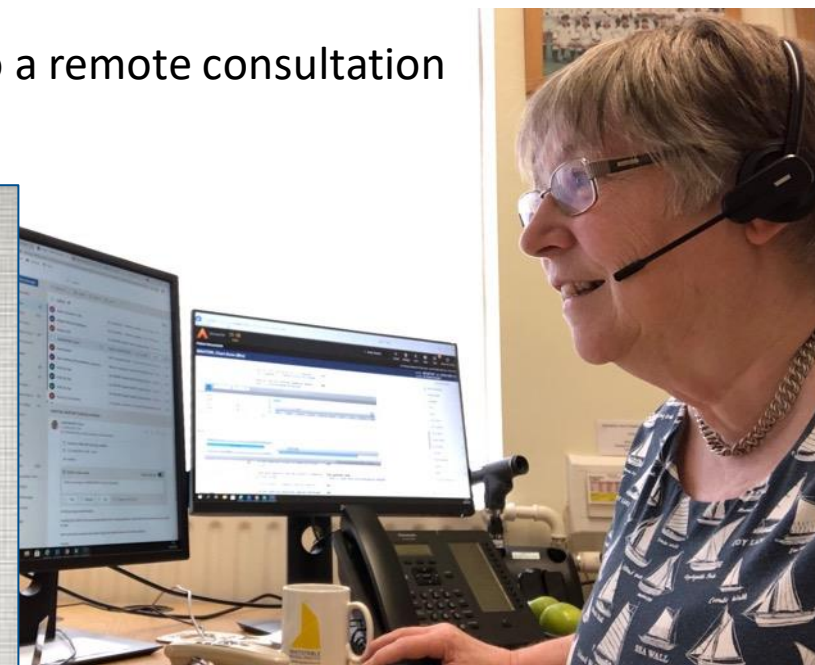


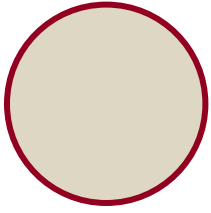
Adjunct to a remote consultation

## Message text

Dear Name  
I have sent Xx's prescription to the pharmacy. You may find this website about hay fever helpful (though some of the treatments will be more useful for people older than X <https://patient.info/allergies-blood-immune/hay-fever-leaflet>.  
Thanks, Dr Pinnock  
Whitstable Medical Practice

300 characters remaining





# On-line and SMS consulting



→ Requesting photos

← Send links (e.g. to information, clips of inhaler technique)



## On-line consultations

(The "Click here" link and PIN for this consultation will expire on Tuesday, 8th of June)

**IDEAS, CONCERNS AND EXPECTATIONS:**

Please tell us in a few words how we can help. **The patient's guardian said**  
*"Right eye swollen. Hurts and itchy"*

Since their symptoms started, have you given your child any medicines? **No**

Is there any particular help you would like? **Yes**

Please tell us what help you would like. **The patient's guardian said**  
*"What I need to do. clean wipe of eye or do we need cream please"*

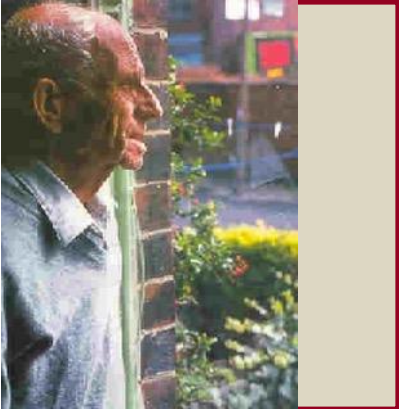
Would you like help from a particular person at the surgery? **If the person that you requested is not available, another member of the team at the practice will contact you.** **No**

**CLINICAL QUESTIONS:**

Please describe your child's symptoms. **The patient's guardian said**  
*"Right eye swollen blood shot hurts and rubs a lot. At the same time he has had a continual cold for weeks with lots of sneezing"*

Has your child injured their eye(s)? **No**





## Remote reviews for COPD



Ask about symptoms and how they are affecting ADL

- Use objective scores (MRC, CAT or CCQ) ✓
- Remember depression ✓

Examination and tests ?

- Some patients may have oximeter/FEV<sub>1</sub> meter

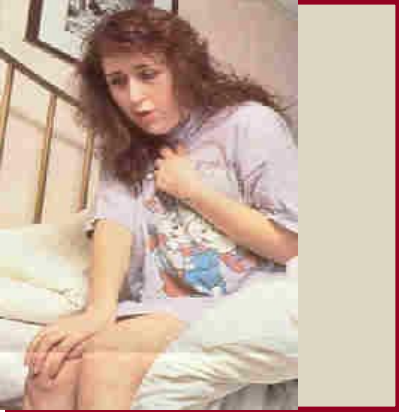
Check smoking status (and advise to quit) ✓

Check inhaler technique (Provide links to video clips) ?

Advise on treatment/discuss adherence ✓

Discuss self-management ✓

**Remember multimorbidity**



# Remote reviews for asthma



Hamour O, et al. npjPCRM 2020;30:48

Establish concerns that the patient wants to discuss ✓

Assess control: Use objective scores (ACT or ACQ) ✓

Assess risk of attacks: Previous attacks, SABA use, poor adherence ✓

Discuss triggers; Check smoking status (and advise to quit) ✓

Check inhaler technique (Provide links to video clips) ?

Discuss adherence ✓

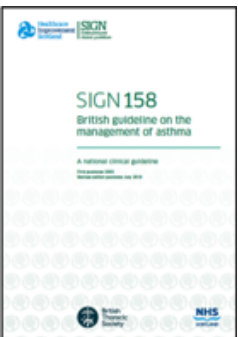
Discuss treatment options ✓

Discuss self-management (Provide an action plan) ?

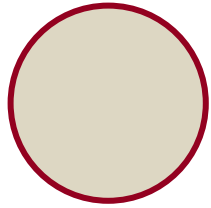


Resources

<https://www.asthma.org.uk>

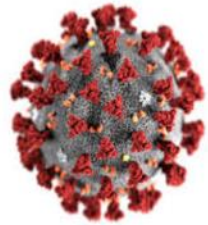


Components of an asthma review <https://www.sign.ac.uk/sign-158-british-guideline-on-the-management-of-asthma>

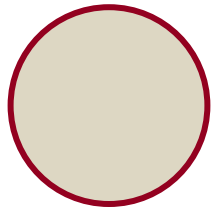


Digital communication and remote consultations are options both for delivering acute healthcare and routine reviews of known conditions

Telephone reviews are convenient, and (when offered as an option) are shorter and more focussed

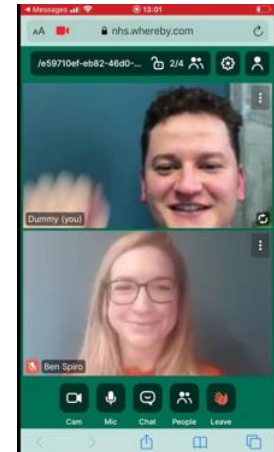
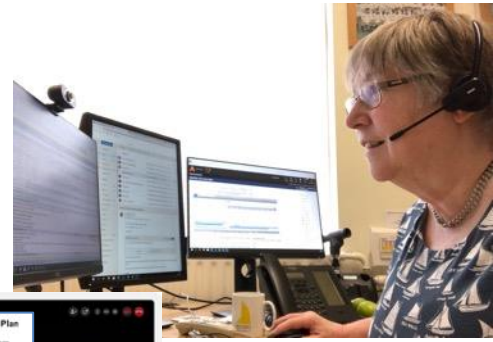


The pandemic dramatically changed the context, promoted organisational change that enabled remote reviews – but removed choice



- Telephone is a known technology which improves access
- Video-consultations offer more features, but are still challenging technically
- SMS has proved a very practical adjunct to remote consultations

Post-COVID a new balance will be struck





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RESPIRATORY  
SOCIETY

every breath counts

## How to care for and communicate with patients digitally

Any questions?

Professor Hilary Pinnock  
Usher Institute, University of Edinburgh  
GP, Whitstable Medical Practice

