

Post Covid-19: The New Normal

Virtual consultations in long-term conditions

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Agenda

1. Background
2. History of Telemedicine, virtual consultations
3. Consultations
4. Personal experience
5. The future

Background

Long term conditions

- Not cured, but can be controlled with medication +/- other therapies
- 75-85% disease burden in UK

Diabetes

Cardiovascular (e.g. Hypertension, HF, Angina)

Chronic Respiratory (e.g. Asthma, COPD)

Chronic Neurological (e.g. Multiple Sclerosis)

Chronic Pain (e.g. Arthritis)

Other Conditions (e.g. Chronic Fatigue Syndrome, IBS, Cancer)

Mental Health Illness

- Most managed with episodic Clinic-Based Model vs Care management Model

Telemedicine allows healthcare professionals to evaluate, diagnose and treat patients in remote locations using telecommunications technology.

Telemedicine, a brief history

- 1876 Dr Alexander Bell-Telephone discovered
- 1879 *Lancet* - telephone use to reduce unnecessary clinic visits
- 1905 Dr Willem Einthoven (Netherlands)- long distance transfer ECG's- CARDIOLOGIST!
- 1925 *Science and Invention* cover-diagnosing by radio + envisioned video
- 1920-40s Radio consultations to ships and islands (Norway, Italy, France)
- 1950s Earliest hospital-based telemedicine (USA) closed-circuit television link between Nebraska Psychiatric Institute and Norfolk State Hospital for psychiatric consultations
- 1950-60s USA, Canada for rural communities
- 1959 Mercury Space programme (NASA)- physiologic monitoring over a distance
Hiatus due to lack of funding/IG
- 1980s New wave
- 2008 First smartphones (HTC Dream , T-Mobile 61)
- 2011 UK: mobile phones > wired devices

Alexander Graham Bell

- 1847 Born Edinburgh
- 1868-70 University College London
 - Mum and Wife Mabel deaf
- 1870 Family move Brantford, Ontario, Canada
- 1871 Moved to Boston, USA
- 1873 Professor of vocal physiology, Boston Uni
- 1876 Credited with invention of the telephone patent. He was 29 years old)
- 1885 American Telephone and Telegraph Company

Inventor: Telephone, Hydrofoil, Metal detector
Founded *Science* magazine



Consultations

Traditional

**Face:Face
“outpatient/clinic”**

Virtual or Remote
(telephone/video)

email

Post Covid-19, The New Normal

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(telephone/video)**

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Consultations

Face:Face model of care

In-person clinical interactions

“outpatient”/“OP-clinic”



- Clinics very busy/
Overbooked/ Overrun
- High expectations
- DNAs unpredictable
- Travel time/costs/parking
- Infection risks

Consultations

Post Covid-19, The New Normal

“Remote or Virtual” Telephone/audiovisual



- Mode of contact-phone/smart phone compatible IT
- Slow computers. Systems not talking to each other
- Previous telemedicine – heavy regulations/costs
- Need for Quiet room
- Language barriers
- ? How to assess without video- Mental health health issues/ Non-verbal cues
- ? Access to data: radiology/blood tests/Rx list)

Personal experience of Telemedicine

1979 **Royal Flying Doctor Service**
(Broken Hill. NSW. Australia)
Radio clinics



2020 **Post Covid-19, The New Normal**

Diabetes clinics > 80% FU; 50%New (if full hx/biochem etc)

Lipid clinics > 80% FU; 50%New (if full hx/biochem etc)

Medication (PCSK9i)

Team MDTs via Zoom

Virtual consultation: Preparation

If able to, contact in advance

- Verbal consent
- Manage expectations
- Upload connections
- Patient- medication list, weight, BP (? Own BP monitor)
- Device upload (e.g., Diasend, Libreview)
- Quiet place

Correspondence

Metrics

- Investigations- eg Lipids, HbA1c
- Device upload (*eg Diasend, Libreview, BP*)

Virtual consultation: “The consultation session”

Phone

- Easier connection no requirement for internet or tablet/screen/smartphone
- Variable time
- Can block number (*67)
- For FU
- ? For new
- Reassurance

Video

- Requirement for internet or tablet/screen/smartphone
- (+) at home, see relatives? See meds. visual teaching aids etc

Virtual consultation: "Post consultation"

1. Document
2. Document
3. Document
 - EPR
 - Prescriptions (GP)
 - FU appointments

Virtual (Remote) consultations

Success is dependent on

- Confidence of HCP
- Access to technology/IT
- Engagement of person(or relative or carer)
- Systematic approach
 1. Connection
 2. Strategy
 3. Data /biochem e.g., lipids/glucose profile
 4. EPR (recording)
 5. Motivated person

GPs told to switch to digital consultations to combat Covid-19

The move is likely to prove controversial because it will mean that many patients are unable to have a physical examination as part of their consultation, risking some symptoms going undetected.

...In 2019...only 1% of which are currently carried out by video, such as Skype. ...NHS Digital figures show...This isn't because of a lack of technology, but in many, many cases the decision has been taken not to offer this type of consultation to patients."

The Guardian, 6 March 2020

2020

[Former chair of] Royal College of General Practitioners, has seen a significant change to the way she works...she now "very occasionally" sees her patients face-to-face.

"About 99% or more of our care of patients has moved digitally or remotely onto the telephone, which is very strange," she told CNBC. "It has transformed."

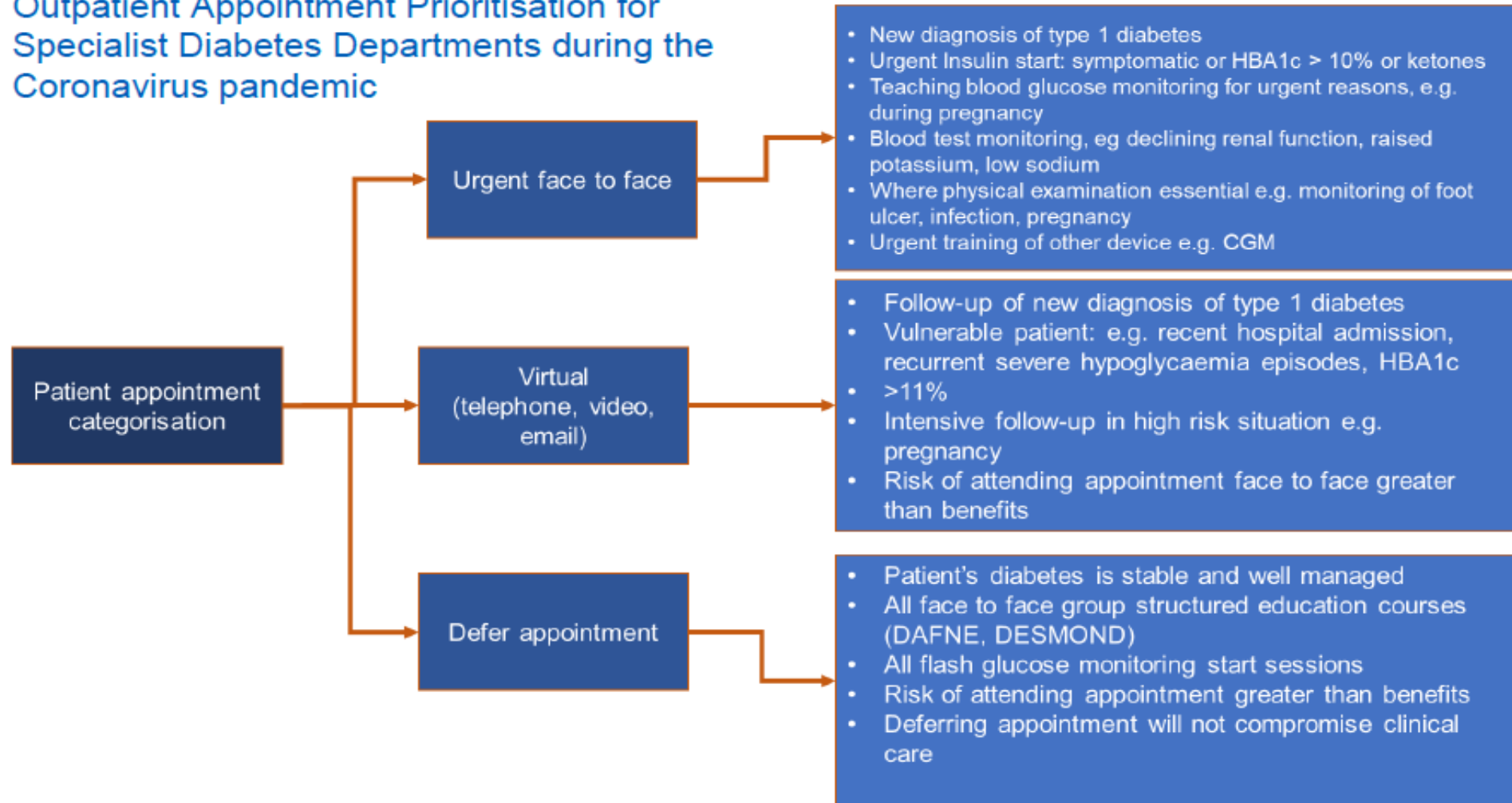
<https://www.cnbc.com/2020/04/09/telemedicine-demand-explodes-in-uk-as-gps-adapt-to-coronavirus-crisis.html>

Royal College of Physicians

(Members Survey, May 2020)

- 65% telephone consults
- 18% video (51% had no webcam for video consultations)

Outpatient Appointment Prioritisation for Specialist Diabetes Departments during the Coronavirus pandemic



The future

Virtual consultations are part of the norm

- Routine FU ; clinical priorities (red/amber/green)

Remote Diabetes Diabetes review (Diabetes & Primary Care. Vol 22;3; 2020)

- Patient's choice
- Improved environmental impact- less travel/ parking
- Work-life balance-
 - Less time off work (patient)
 - HCP work locations

Technology

- Enhanced IT support for patients and HCPs
- Menu of new(er) remote options: audio, video, text, email, mobile phone apps, increase in wearable devices/monitors, and chatbots
- Integration of Teleradiology, Telepathology, Telepharmacology
- Update of privacy and communication regulations
- Enhanced monitoring support (e.g. Diasend, Libre view)
- Enhanced on-line teaching modules, Websites (ABCD, NHS, HEART UK)
- Team MDTs
- IT evolution (“integrated whole systems” more push for “easy to use”)

Conclusion

Perspective - Covid-19 and Health Care's Digital Revolution

“Fortunately, the world is at different place than it was in 1918 (“the Spanish Flu”). We have the technology to strengthen our health care system for our patients. It’s time we put these tools into practice.”

e82, June 4, NEJM 2020

Starting a Virtual Consultation

1 Set up
Prepare yourself and decide how to connect

- Have current 'stay at home' covid-19 guidance on hand
UK government advice: <http://bit.ly/ukgovisol>
- Video is useful for:
 - Severe illness
 - Anxious patients
 - Comorbidities
 - Hard of hearing
- Scan medical record for risk factors such as:
 - Diabetes
 - Pregnancy
 - Smoking
 - Chronic kidney or liver disease
 - COPD
 - Steroids or other immunosuppressants
 - Cardiovascular disease
 - Asthma

2 Connect
Make video link if possible, otherwise call on the phone

- Check video and audio
Can you hear/see me?
- Confirm the patient's identity
 - Name
 - Date of birth
- Check where patient is
Where are you right now?
- Note patient's phone number in case connection fails
- If possible, ensure the patient has privacy

3 Get started
Quickly assess whether sick or less sick

- Rapid assessment
If they sound or look very sick, such as too breathless to talk, go direct to key clinical questions
- Establish what the patient wants out of the consultation, such as:
 - Clinical assessment
 - Referral
 - Certificate
 - Reassurance
 - Advice on self isolation