

Review article

The role of telephone consultations in respiratory medicine.

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Introduction

Respiratory medicine covers a diverse range of diseases, many of which are long-term and characterised by periods of stability punctuated by acute exacerbations. Typically, such conditions require regular health care contacts, both scheduled and unscheduled, for review and support when stable and for acute care during exacerbations. With the rising global prevalence of chronic respiratory diseases such as asthma and COPD healthcare systems face an increasing challenge to provide timely and effective care. Consistent follow up is further complicated as patients, faced with balancing the need for repeated clinic visits with the competing demands of family/working life, may have erratic attendance patterns. Gaps in care can ultimately lead to poor compliance with treatment and deterioration in health. Healthcare professionals, therefore, need to consider ways to improve the accessibility, convenience and efficiency of care for long-term respiratory conditions, and it may be that telephone consultations have a role to play in this provision of long-term follow up and care.

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Background

Telephone medicine has a long history in the management of medical conditions. Patients routinely access medical services by telephone, whether for advice, information or as a gateway to other services¹. More recently, the development of new technologies has led to intense interest in the role of telemedicine in the management of patients with chronic conditions. A range of technologies which enable remote monitoring of a patient's condition, such as video conferencing, electronic communication, and devices which record and transmit clinical signs and symptoms in real time, have been introduced and evaluated². However, it seems that in the drive to keep pace with advancing technology, the most widely accessible, economical and convenient technology available for remote patient monitoring – namely the telephone – is in danger of being overlooked.

The effective management of long-term respiratory disease ideally requires ongoing patient review to monitor disease progression, control symptoms and prevent or identify exacerbations^{3 4}, and there is clear evidence that patients with long-term respiratory conditions prefer care to be by the same doctor^{5 6}. Therefore any approach which facilitates regular follow up is of particular value. Standard care, involving regular clinic visits, involves a commitment of time and expense for patients that may be prohibitive. In mild or stable disease, other priorities are likely to take precedence⁷, while more severe disease is frequently associated with multiple chronic conditions, increased visits to healthcare facilities and combined healthcare needs that lead to a major disruption of patients' lives^{8 9}. Interventions which can reduce the burden on patients while providing improved continuity of care can substantially improve health outcomes.

Telephone consultations are now a common feature of modern healthcare systems and have the potential to increase the accessibility of healthcare services, providing patients with flexibility and convenience^{10 11}. Whether used as an adjunct to or substitute for routine care, in many countries telephone-based interventions are already widespread in both primary and secondary care settings and their use has been documented in triage, counselling, health promotion and education, disease monitoring and simple administrative tasks^{12 13 14}. Specific guidance is limited, but appropriate use of telephone consulting is now considered to be an acceptable mode of healthcare delivery¹⁵, and particularly effective for ongoing outpatient care and follow up^{8 16}.

Review and Discussion

Commonly perceived advantages to telephone consultation for patients are reductions in time (both travel and waiting time), costs and stress. Studies which compare telephone consultation with routine face to face follow up highlight the flexibility of the telephone-led system, which enables patients to consult their physician at a distance, or from work. This removes transport, work and family related obstacles and provides convenient, patient-centred access to healthcare services^{17 18 19}. Clinicians have also identified advantages for the healthcare provider, specifically shorter, more focused consultations, reduced costs and the potential for more frequent contacts^{20 21 22}. Where assessed, satisfaction rates, symptom control and quality of life measurements are equivalent to routine care, although other positive outcomes, such as a reduction in acute exacerbations, total health care contacts, hospital stays or mortality have yet to be conclusively demonstrated and require further study.

Of course, access to a confidential telephone, although widespread, is not universal²³, and even where patients do have access telephone management may not be appropriate. The British Medical Association notes that face to face consultation should be considered the gold standard of care¹⁵, and that clinicians are obliged to recognize and make allowances for the limitations of other methods of communication. Both patients and clinicians tend to view the follow up of recurrent and chronic conditions, and communication of test results as appropriate for telephone management, while considering serious and unstable conditions less suitable²⁴, and an existing relationship between clinician and patient appears to provide additional reassurance for both parties. These documented preferences support the conclusions of observers that telephone consultation is particularly suited to the management of chronic disease where there is continuity of care between the patient and health care provider^{16 8}. However, for safe practice any telephone consultation system must consider patients on a case by case basis and include provision for rapid face to face assessment where deemed necessary by the clinician¹³. Where telephone consultations have been established, common criteria for exclusion of patients from participation include language and hearing difficulties and cognitive impairment. The other most frequently cited reasons for requiring face to face consultation are the need for clinical examination or investigations, or the clinician's judgement that the disease is too severe or complex to be assessed by telephone^{18 25}.

Box 1

Safe management of a telephone consultation

Organisational needs:

- Access to medical records
- Confidential area/phoneline
- Protected time
- Under- and post-graduate training
- Provision for early face to face follow up

Despite the exclusion criteria noted above, studies which assessed the feasibility of telephone consultation services have found that high proportions of patients with chronic medical conditions are suitable for follow up by telephone^{20 19}²³. When their opinion was sought, the majority of patients also found the idea of telephone consultation acceptable and many patients were able to perceive personal benefits to the use of telephone medicine, citing the avoidance of inconvenient journeys to healthcare facilities specifically^{17 24}. One study suggests that familiarity with telephone consultation further increases acceptability¹⁸, although it should be noted that certain patient populations seem generally less keen on this mode of consultation. In particular, older patients voiced concerns that they would be unable to adequately describe problems and symptoms, and less able to recall advice from a telephone consultation. Some of these concerns can be addressed by allowing ample time for detailed history taking and any patient queries, and by ensuring that the patient receives a written summary of what was discussed during the consultation. However, the fact that some patients do not find telephone consultations acceptable raises the issue of valid consent, and the BMA recommends recording patient

consent if telephone contact is used as an alternative to face to face consultation¹⁵. In these circumstances, though, the most important consideration for the clinician may be to ensure that the patient clearly understands the purpose and limitations of the consultation and, again, to ensure that alternative facilities are in place for those who find it unacceptable.

The substitution of face to face with telephone consultations, even where suitable, does have certain limitations. The absence of visual cues and body language may create communication barriers and hamper the development of the physician-patient relationship¹⁸. As a result patients may find the contact impersonal. The inability to perform physical examination also precludes a full patient assessment, and both patients and clinicians raise concerns regarding the potential for misunderstanding and the risk of missing a serious condition²⁴. However, many of these risks can be minimised by the development of specific skills and techniques (See Boxes 2 and 4), and it should be recalled that telephone consultations are a substitute for **some** consultations, not **all**. Detailed and structured history taking, with the use of explicit questions, can compensate for the absence of clinical examination in many cases, and frequent paraphrasing and summarising reduces the risk of misunderstandings. Other constraints of telephone consultation are less clear, but evidence suggests that the focused and remote nature of telephone consultation decreases the potential for opportunistic health promotion and could impact on preventive measures to improve health^{25 14}. However, these negative effects could be mitigated by providing an alternating system of telephone and face to face contacts for long-term follow up and may be outweighed by the benefits of more frequent patient contact.

Box 2

Management of a telephone consultation

Clinician skills:

- Systematic approach
- Active listening
- Detailed history-taking
- Heightened awareness of verbal cues
- Paraphrasing/summarising

Given the proven acceptability and feasibility of systems which incorporate telephone medicine into the management of chronic disease, it is perhaps not surprising that telephone consultations have been introduced in healthcare settings dealing with long-term respiratory conditions. A limited evaluation of a telephone consultation service for patients with cystic fibrosis found that this increased accessibility and provided patients and their families with savings of time and costs²², although it could not demonstrate improved health outcomes or a reduction in the use of healthcare resources. A second study which examined the use of telephone consultations for asthma review had extremely positive results, and was found to increase the number of patient contacts by 26% compared with routine care. This enabled the service to meet targets for proactive structured review, in line with asthma guidelines. The same study concluded that there was no increase in acute exacerbations or use of healthcare services compared with routine care, and that the system provided an effective and efficient use of resources²⁰. In fact, the BTS specifically states in its asthma guidelines that **“reviews carried out by telephone may be as effective as those using face to face consultations”** and that physicians should **“consider carrying out routine asthma reviews by telephone.”**(8.1.2)⁴.

The role of telephone consultations in the management of other respiratory conditions is less clear. The latest COPD guidelines for Australia and New Zealand suggest that **“telephone follow up [post hospitalisation for exacerbation] may be a way of systematically extending support to patients”**, but acknowledge that this intervention needs further study (abramson²⁶). This implies a role for telephone management in COPD patients who have had a change in status and require follow up in a recovery period, although it should be noted that other COPD guidelines specify the need for physical examination of patients at follow up and review^{9 3}.

Recommendations are not so much conflicting as lacking in evidence, and there is an urgent need for further systematic study and evaluation of the role of telephone consultations in specific respiratory diseases and health states. Two studies based in respiratory outpatient departments have provided a good starting point, demonstrating that telephone consultations provide an acceptable alternative to routine care for approximately a third of patients attending general respiratory clinics, and can be an effective management tool in a wide range of respiratory conditions, including asthma, suspected obstructive sleep apnoea, persistent cough and COPD^{23 19}. One of these studies also found that consultations conducted by telephone were significantly shorter than those carried out face to face, permitting a more effective use of the clinician's time and, potentially, a higher volume of patients to be reviewed. This result supports the findings of other studies and points the way towards more efficient management of the increasing number of respiratory patients requiring follow up.

Box 3

Safe conduct of telephone consultations

- Verification of identity – identify yourself and check the patient's identity

Remember that different members of a family often share the same name

- Valid consent – ensure the patient is aware of the aims and limitations of the consultation
- Confidentiality – check that both you and the patient are in a quiet and confidential environment
- Documentation – as with any consultation, full and accurate documentation is essential
- Quality assurance

It cannot be said with any certainty that telephone consultations will reduce the burden on healthcare services caused by long-term respiratory conditions. The very fact that telephone consultation facilitates more frequent follow up and review of patients with long-term disease may actually escalate health service use, at least in the short-term, as these patients are more likely to access recommended screening, treatment and support services⁸. However, these increased contacts could reap benefits for the patient in the long-term with regular monitoring of symptoms and early identification of exacerbations. These advantages seem particularly evident in the management of asthma and are supported by one study carried out in an adolescent population. This demonstrated an 86% reduction in hospital admissions and 79% reduction in emergency room attendances compared with usual care when monthly telephone consultations were carried out by a specialist nurse over a period of 6 -24 months²⁷. This suggests that timely intervention and advice can cause significant reductions in healthcare costs. However, this is not the main consideration. The needs of service users should be paramount and studies demonstrate consistent cost and time benefits for patients, and suggest that these can be achieved without compromising patient care and may, in fact, result in improved disease control in the long-term.

If the role of telephone consultations is to be further developed, it is essential that clinicians receive sufficient support, both through training and infrastructure to ensure their safe conduct and reduce the incidence of telephone medicine errors²⁸. Specific skills and techniques are summarised in Box 1, but particular consideration should be given to the need to verify patient identity, and to ensure confidentiality at both ends of the telephone consultation, while on an organisational level, ensuring access to medical records and sufficient protected time are key^{29 19 11}(See Box 2). Treatment and follow up plans need to be agreed and confirmed and, as with any consultation, there must be complete and accurate documentation of the encounter. Robust training and quality assurance procedures should minimise errors and provide a safe basis for future service planning²⁸.

Conclusion

Telephone consultations are not new, but evaluations of their use in healthcare in general, and specialised respiratory settings in particular, suggest that they may be particularly suited to the management of long-term respiratory conditions.

Box 4

Practices to facilitate a telephone consultation

- Provide the patient with written information in advance to help them prepare for the consultation
- If, as is usual, the consultation is pre-arranged be punctual and check that it is still convenient to proceed
- Use protocols and standardised questions to aid patient assessment
- Allow plenty of time for the patient to ask any questions
- Regularly paraphrase and clarify what has been discussed
- Check that there is clear understanding of / agreement on any treatment plans
- Set clear follow up arrangements
- Confirm all details of treatment and follow up

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