THE CAMPAIGN FOR GREENER HEALTHCARE

GREEN NEPHROLOGY: TELEPHONE CLINICS IN FOLLOW UP OF RENAL TRANSPLANT RECIPIENTS – CASE STUDY AND HOW-TO GUIDE

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CASE STUDY – University Hospital of Coventry and Warwickshire

Renal units have traditionally used outpatient clinics to provide routine follow up to their transplanted patients, although the care required is often very simple and the patients typically feel well. The renal unit at the University Hospital of Coventry and Warwickshire has been successfully running a twice-monthly telephone clinic to provide follow up to these patients since 2006. This was primarily set up to reduce the inconvenience to patients of frequent trips to hospital. Patients are offered the choice to remain in the traditional follow up system or switch to quarterly telephone clinic follow up, with just one annual traditional ('face-to-face') outpatient appointment at their local renal clinic

The drop-off zone at University Hospital of Coventry & Warwickshire. Many patients prefer a telephone consultation.

In preparation for a telephone consultation, patients undertake their blood tests in the normal way (at UHCW this entails visiting either their GP, one of four local hospitals, or the city centre phlebotomist service). Patients are also asked to provide up-to-date blood pressure and weight readings (which can either be taken at home or at the Family Practice). Telephone appointments are scheduled to last 10-15 minutes, and the patients ring in at designated times. Letters are sent to GP's in the normal manner. Blood test forms are sent out to patients along with their next appointment time.

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"I'd love to see RenalPatientView.org, which allows patients to view their own blood results, extended so that the blood tests can be done locally and uploaded to it. Then the consultation with the specialist could be done afterwards by phone, email or even Skype. This would save patients having to physically turn up regularly, and sometimes very frequently, to clinic – often mainly just to have a needle stuck in their arm."

Andy Williamson (Vice Chair - Guy's and St Thomas' Kidney Patient Association)

Telephone consultations are clearly not suitable for all patients and are offered at the discretion of the clinical team. No hard and fast rules have been developed, but patients must have stable transplant function, and factors such as a patient's hearing and co-morbidities are also considered. The UCHW service now provides follow up to approximately 125 of the 360 patients with stable transplants of more than one year's standing.

Background

Telemedicine, in its various different guises, is becoming increasingly common as healthcare professionals seek to improve the accessibility and quality of the care they provide, whilst catering for an ageing population. Although telephone consulting, the simplest form of telemedicine, has been widely used to reduce the burden on primary care and Emergency Departments, there is little precedent for its use in kidney care. However, it appears to be well suited to this role.

Intended Benefits

When used appropriately, telephone consulting offers a number of obvious benefits including more convenient access to healthcare and considerable time savings for patients. However, informal feedback from patients in the UHCW telephone clinic has revealed another unexpected but important benefit, with patients reporting a heightened sense of empowerment in the management of their medical problems. Most transplanted patients have previously been required to attend the hospital on frequent occasions, often for many years, particularly during the months following their surgery and during any periods on dialysis. Whilst clinicians may sometimes think that these patients become 'used to it', the reality is that most patients find these frequent trips to hospital extremely wearing, and the opportunity to reduce them is therefore often interpreted very positively by patients, empowering them to take greater responsibility for their care - a vital component of the successful management of chronic disease.

"Although telephone consultations are obviously more convenient, those patients embracing the telephone clinic that we run appear to see empowerment as the biggest benefit."

Dr Rob Higgins, Consultant Nephrologist, University Hospital Coventry & Warwickshire.

The environment also benefits from telephone clinics – patient and staff transport contributes nearly one fifth of the carbon footprint of the NHS, so opportunities to reduce unnecessary travel are important.

Journeys to hospitals can be time consuming and expensive for patients.

Possible disadvantages

Telephone consulting does not allow a doctor to perform a physical examination of a patient. For this reason, telephone consulting is poorly suited to those aspects of healthcare in which a new diagnosis might be required to be reached. Physical examination is arguably of less importance in the setting of planned follow up, and is often not part of a clinician's routine assessment of transplanted patients. It should also be noted, however, that the use of telephone consulting results in the loss of the more subtle visual clues which clinicians may use subconsciously to gauge a patient's health. The absence of both these formal and informal physical examinations makes a thorough history all the more important during telephone consultations. Patients can always be asked to attend a face-to-face appointment should the history then suggest a physical examination is warranted.

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What barriers might be encountered when introducing a telephone consultation clinic into a renal service?

In some units, blood tests are undertaken at the renal clinic itself on the day of the appointment, with the results reviewed after the consultation. Implementing a telephone clinic service in these units would require alternative arrangements to be made to allow patients to have their blood tests undertaken as locally as possible. This change in practice may have implications for the cost of the service.

Staff may also prove to be a barrier, as not all clinicians in a unit may wish to participate in a telephone consultation clinic. One solution is to have the clinics run by the enthusiasts, and to allow 'referrals' from their colleagues.

Financial Considerations

Although sometimes perceived as a barrier to virtual medicine, the Payment by Results (PbR) system in fact makes provision for it. Clauses 174-177 of the Payment by Results Guidance for 2009 (available at http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_097469.pdf) state that the tariff commanded by non-face-to-face activity *of any nature* is £23. However, this figure is designated as 'non-mandatory', meaning that it is negotiable with the Primary Care Trust commissioning body.

A renal service cannot introduce a telephone consultation service without the consent of the commissioning body, and the hospital's Contracting Department should be involved. A suggested approach to the necessary series of negotiations is to request that the commissioning body pay the existing tariff for a face-to-face consultation, less a percentage (eg 10-20%) to reflect the need for blood tests to be undertaken in primary care – rather than to undertake a bottom up costing of the telephone consultation service. A renal service will also need to provide reliable activity baselines during these contract negotiations (often with a risk tolerance), and it is likely that most commissioning bodies will require at least six months notice prior to the intended first clinic date. The renal service will need to record the clinic activity at a patient level in order to charge the commissioners.

Carbon Savings

The carbon savings of telephone clinics will of course vary between different renal units catering for different geographical areas and patient numbers. A ball-park figure for the carbon savings attributable to replacing a single face-to-face clinic with telephone consultations can be made by undertaking a simple transport survey on patients attending clinic. From each patient,

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identify the primary modality of travel (eg walking or cycling, car, bus, train, or tube). Also identify the *return* distance travelled in kilometres (perhaps by using GoogleMaps and the postcodes of the patient's home address and the renal unit). Calculate the total number of kilometres travelled by each modality for patients attending a single clinic. Then convert these distances to emissions using the relevant conversion factors.

Transport Modality	**Conversion Factor**
Bus	0.10462 $kgCO_2eq/km$
Train	0.06113 $kgCO_2eq/km$
Car (average sized, diesel or petrol *)	0.20487 $kgCO_2eq/km$
Active Transport (walking, cycling)	0 $kgCO_2eq/km$

* more specific conversion factors, for different engine sizes and fuel types, are available from the DEFRA website at http://www.defra.gov.uk/environment/business/reporting/conversion-factors.htm.

Using a similar method, the annual carbon savings resulting from the fortnightly telephone clinic in Coventry have been estimated at approximately 2000 $kgCO_2$ equivalents

Major Risks

Patient Safety

Patients in whom follow-up is predominantly telephone-based may be examined by clinicians less frequently and this may introduce a risk to patient safety. Although further research is undoubtedly required, the medical literature does not appear to indicate that telephone consultations increase the risk to patient safety when used to provide routine follow up of patients with chronic diseases. Indeed, some studies show the opposite effect. However, efforts should be made to reduce the risk to patient safety in all aspects of clinical care, and two clear measures exist in relation to telephone consultations.

Firstly, the exclusion of patients for whom telephone consultations might be inappropriate is vital. Secondly, should a clinician undertaking a telephone consultation identify a need to examine a patient, the system must allow the organisation of a face-to-face review in a timely and convenient fashion.

The possibility of missing skin cancers may be a particular concern to clinicians providing telephone-based care for renal transplant recipients taking immunosuppressants. All patients, irrespective of their follow up modality, should be educated to look for and report new or

changing skin lesions. In reality, those patients with a prior history of skin cancer will have open access to the local dermatology service. Those reporting their first skin lesion will usually be seen faster if referred by their General Practitioner (under the '2 week wait' referral system for suspected skin cancers). The practice of the clinicians in the University Hospital of Coventry and Warwickshire telephone unit is therefore to ask these patients to seek a review (and possible referral) by their General Practitioner.

Financial Risks

The likely discrepancy between the suggested PbR tariff for non-face-to-face activity (£23) and the re-imbursement that a Trust currently receives for providing its existing outpatient clinic service means that there is a potential financial risk to the Trust whereby the tariff does not cover the full cost of running a telephone clinic. This risk is avoidable as the tariff for non-face-to-face activity is negotiable and must be agreed in advance with the commissioning body, allowing Trusts the opportunity not to introduce the service where tariffs might be insufficient. As, in most cases, the telephone clinic will simply replace the existing face-to-face activity, we would suggest that Trusts are well placed to argue that it should be financially supported.

GETTING STARTED – 'HOW TO' GUIDE

Ascertain the size and frequency of the telephone clinic you wish to run.

1. Determine the catchment population for the telephone clinic. You may wish, eventually, to offer the service to all renal transplant patients under the care of the renal service. However, it may be simpler to begin by running a telephone clinic to cater for those patients under the care of a particular consultant.

2. Within this catchment population, estimate the potential number of patients that might be suitable for follow up by telephone clinic. Start by identifying the number of patients with stable renal transplants of more than one year's standing. You might choose to ask these patients, at this early stage, whether they would be likely to opt for telephone consultations. This would provide you with a good understanding of the capacity to which to develop the transplant clinic. It would also allow you to return to these patients directly once the opportunity to book patients into the clinic arises, hopefully reducing the period for which the clinic is 'underfilled'.

3. Clarify how many patients you envisage enrolling in the transplant clinic. Perhaps begin slowly, by developing a clinic with capacity to follow up around 10-20% of the patients with stable renal transplants (as, of course, not every one of the patients you have identified so far will meet the necessary criteria, or indeed wish to switch to follow up by telephone) or around 50% of those patients who have indicated that they would prefer to be followed up in this way.

4. Given the number of patients you intend to follow up by telephone consultation, the approximate frequency with which you plan to review them, and the duration of time you anticipate allocating to each consultation (usually 10-15 minutes), ascertain how frequently you will need to hold telephone clinics.

Consider the resources you will require.

5. Ensure that your department will have the necessary resources and administrative support to run the clinic. Once the telephone clinic is running near to its intended full capacity, the reduction in the number of consultations in other clinics should 'free up' the staff and resources required for the telephone clinic, but this might not happen immediately.

6. Identify where you will run the clinic. For example, by moving the clinic to your office you will free up a room in the outpatient department (but you would need to re-organise the delivery of patient notes).

7. Identify how patient blood tests will be undertaken. Any departure from current practice may have costing implications. Also, where necessary also consider how results will be retrieved, and whose responsibility this will be.

Determine how your unit will be funded for the telephone clinic.

8. Involve the Contracting Department in your hospital in order to commence negotiations with the Primary Care Trust commissioning body.

9. Ensure that any agreed tariff fully covers the activities entailed in the running of the telephone clinic.

Further tips

1. Ensure that patients appreciate that they can return to face-to-face appointments at a later date if they choose to do so.

2. It is important that the Trust and commissioning body define the unit of care covered by any agreed tariff. For example, it might be important to state whether or not impromptu phone calls between patients and clinicians that occur between designated telephone clinic appointments will also count as consultations.

FURTHER INFORMATION & SUPPORT – PLEASE CONTACT:

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