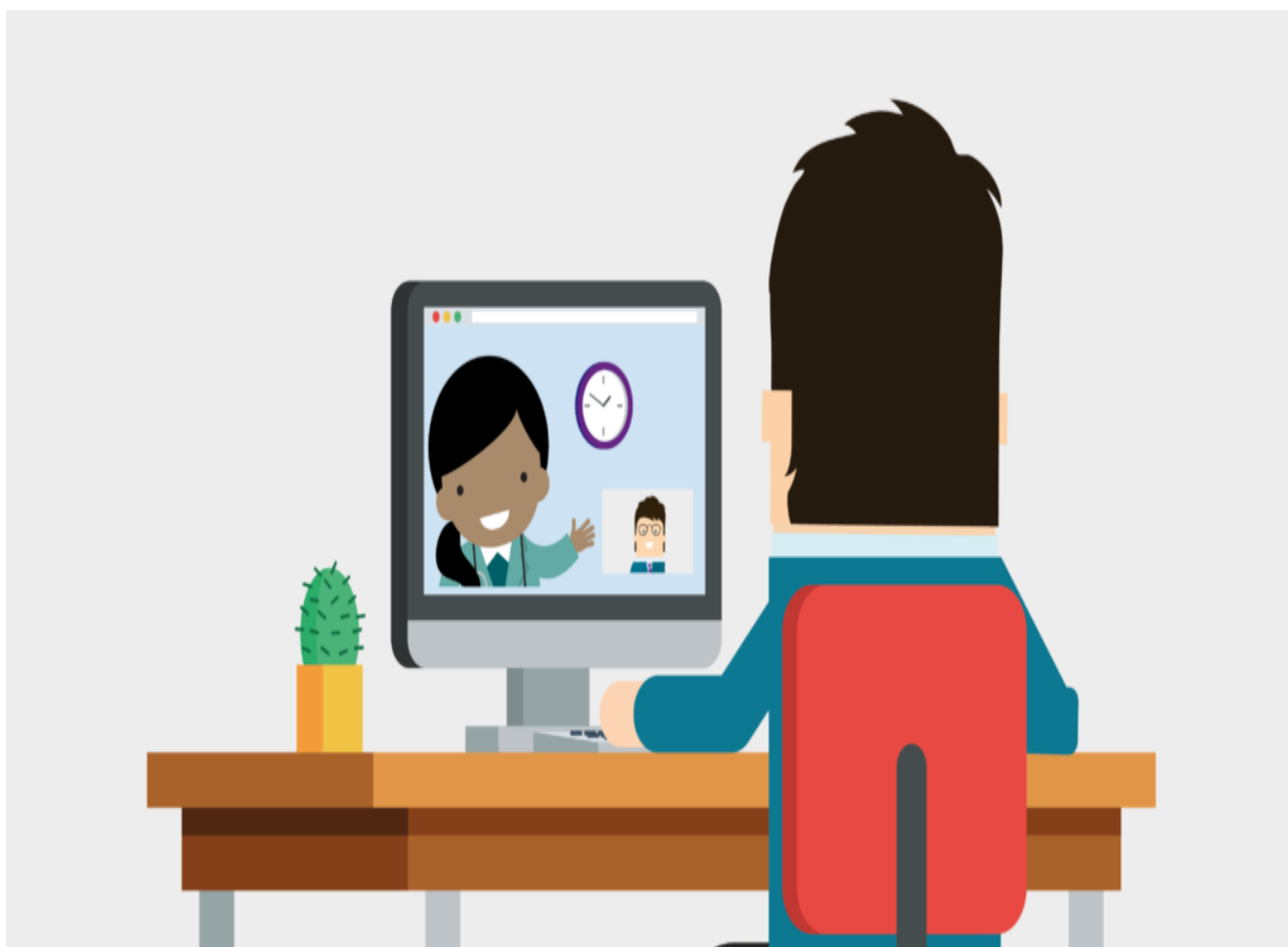


Article

Rheumatology Consultants and the use of telemedicine

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Introduction into Telemedicine for Rheumatology

Taken from: NRAS magazine, Autumn 2010

Telemedicine is the use of information and telecommunications technology to provide patients with healthcare at a distance. This can be done in a number of ways from a simple phone conversation with a medical professional, to online communications with video conferencing, emailing, and even Smartphone apps. The aims of telemedicine are to reduce pressure on secondary healthcare services (e.g. by reducing hospital admissions) and to provide clinical care at a distance. It is especially beneficial for those in remote areas to reduce the distance they have to travel to appointments or waiting times between appointments.

The first interactive telemedicine system was developed in 1989 using standard telephone lines to remotely help with the diagnosis and treatment of patients in need of cardiopulmonary resuscitation (CPR), but there are now many applications for telemedicine. Some of the services that can be offered by telemedicine now include:

- Patient consultations or 'interactive telemedicine' which involves real-time interaction between the patient and medical professional, often using online two-way video conferencing. This allows a physician to consult, from their office, with patients living in isolated areas where access to services may be limited.
- Specialist referral services or 'store-and-forward' telemedicine can be used to assist GPs in making a diagnosis. This involves transmission of diagnostic medical data for the specialist to assess at a convenient time offline.
- Remote patient monitoring is used to manage chronic conditions. This involves patient self-management and monitoring of vital signs like blood pressure or blood glucose, which are then sent to a medical professional for interpretation. This allows the condition to be monitored remotely without the patient having to travel to a hospital or clinic for basic assessments.
- Medical education can also be improved by telemedicine; one example of this would be providing online seminars for groups of medical professionals in remote locations.
- Online patient information includes the use of the internet to provide medical and health information and peer-to-peer support through online discussion groups and forums.

One of our Members who has recently had her first interactive telemedicine consultation has kindly written about her experience for us...

My personal experience of using telemedicine

BY MATILDA TUMIM



Even before I experienced it for myself, I could see the merits of having consultations by telemedicine. A video link is set up from the main hospital in Aberdeen to our local hospital here on the Orkney Mainland.

A senior physiotherapist/moving and handling advisor acts in place of a rheumatology nurse here. She examined most of my joints carefully and called out clearly, telling the consultant which joints were tender, swollen or both. This was an interesting experience because I have never had much visible swelling accompanying painful joints, and she watched for my reaction rather than waiting for me to tell her what hurt.

Telemedicine does have significant shortcomings and having experienced this form of consultation with my rheumatologist for myself now; I would stress that it is useful only as an add-on to being examined by the consultant and speaking to him or her in person. My consultant emphasised that this was exactly the purpose it was set up for and was not intended to replace one-to-one specialist consultations, I was glad to hear.

The shortcomings are that the picture frequently breaks up, depending on the quality of the broadband connection, so that the consultant on the screen dissolves into a thousand little cubes mid-speech, which is disconcerting and of course makes any eye contact impossible! The voice is always slightly delayed in its transmission, which makes it hard to converse in a normal way and leads to many unintended interruptions. Also, the echo means that it is often hard to understand what is being said.

Personally, I prefer to have eye contact with people I'm discussing my health with. I also feel happier to be examined by someone as experienced as my consultant because he is, after all examining patients with arthritic conditions every day and will have an instinctive feeling of when something is

not right. And because the mechanical side of RA is only one part of the equation I also found it hard to speak about other less obvious symptoms such as constant low-level pain, consistently raised ESR, mood swings and strange temperature changes that make my fingers go white in the run-up to a flare. Telemedicine can depersonalise communication and may impact negatively on the human dimension required for rheumatology, and probably also for most chronic and painful long term conditions.

Having waited a long time for this appointment, I had far too many questions, and the time-lapses and disrupted picture made clarity of thought and speech that much harder to maintain. However, I hope that I will be seen in person when he visits Orkney in approximately six weeks' time, by which time adjustments in the dosage of DMARDs will hopefully be making a difference. And of course, it is far better to be seen in this way than not to be seen at all.

Telemedicine is an increasingly useful tool for remote NHS locations and for services that are beleaguered. It can reduce the need for travel and take the pressure off existing rheumatology lists. But it certainly would not suit all patients, especially those coming new to inflammatory arthritis or who are technophobic or unfamiliar with Skype or video conferencing – on this all three of us were agreed.

Read more

[Diagnosis](#)

RA can be very difficult to diagnose, as there is no single test to show whether or not you have the disease. Diagnosis is decided through a combination of blood tests, scans (such as X-ray or ultrasound) and an examination of your joints by a consultant rheumatologist.