



**Media Release**

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**Field trial finds teledentistry a viable alternative for regional and rural paediatric patients**

Researchers in the Oral Health CRC at the University of Melbourne have recently completed a field trial to investigate the viability of using teledentistry to carry out dental specialists' consultations with children living in regional locations.

The group of research dentists teamed up with technology experts at the University of Melbourne's Institute for a Broadband-Enabled Society (IBES) and dental specialists at the Royal Children's Hospital in Melbourne to investigate the clinical and technological requirements necessary for successful teledentistry consultations.

A total of 43 patients aged between 2 and 18 years in Rosebud, Shepparton and Geelong participated in teledentistry consultations with cleft lip and palate specialists and orthodontists based at the Royal Children's Hospital.

Technology required for the field test included a computer with a substantial amount of memory, a web-camera, video-conferencing software and a specialist intraoral dental camera to capture images. The trial found that video-streaming at a minimum of 3Mbit per second and internet bandwidth of 5Mbit per second gave clinicians sufficient video quality to interpret images.

Three general dental practitioners (one each in Rosebud, Shepparton and Geelong) were trained to use the teledentistry equipment. The general dental practitioners used their intraoral cameras inside patients' mouths, with specialists at the Royal Children's Hospital and the Melbourne Dental School conducting virtual dental examinations. The general and specialist dentists collaborated to develop a treatment plan for each patient.

Because the teledentistry examination was usually the initial consultation with the specialist, for some consultations, the specialist requested additional information such as radiographs, before the course of care could commence.

Fifty-seven per cent of consultations resulted in the avoidance of travel to the Royal Children's Hospital in Melbourne. Half of the patients were given a follow-up visit with the specialist in 6 to 12 months' time.

The majority of parents were satisfied with the remote dental examination. Two thirds of parents commented that the most valuable element of the remote examination was avoiding the need for difficult and expensive travel to Melbourne, with one participant commenting that "Not needing to take the day off to drive to Melbourne for a 5-minute appointment" was a benefit.

A/Prof Rodrigo Mariño of the Oral Health CRC says that the trial provides early evidence that teledentistry could improve access to dental specialists and reduce travel for patients and their families living in regional and rural areas. "This trial demonstrates that teledentistry could provide an effective alternative model of care for families living in areas where children don't have convenient access to dental specialists."

Further teledentistry trials are being considered, with more advanced features such as 3D printing, and involving more dentists across a wider geographical area.

A report on the field trial has been published by IBES and is available to download at:  
<http://www.broadband.unimelb.edu.au/publications/2014/Paediatric-Teledentisty.pdf>

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**Further information:**

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**The Oral Health CRC (Cooperative Research Centre) brings together scientists, clinicians and industry to advance the prevention, diagnosis, treatment and management of oral diseases. It is funded through the Australian Government's Cooperative Research Centres program and the contributions of its research partners. [www.oralhealthcrc.org.au](http://www.oralhealthcrc.org.au)**