



Better Clinical Decisions Through Innovative Communication

Overview

- **The Challenge** – Time-constrained clinicians across a vast and geographically dispersed cancer treatment network need to meet often to review patient data, while maintaining their individual responsibilities.
- **The Answer** – IOCOM implemented a highly-customisable and highly-scalable videoconferencing and collaboration system across the West London Cancer Network (WLCN).
- **The Benefits** – WLCN specialist meetings increased attendance levels by nearly double compared with pre-implementation rates; patient care and better clinical decisions increased due to greater collaboration between teams.

Painful process receives a shot in the arm

Due to clinicians' heavy schedules, the logistical problems of being in many different locations and difficulties of quickly transmitting large data files, poor attendance at WLCN specialist Multi-Disciplinary Team (MDT) meetings was a recurring problem. Having low attendance at these meetings potentially resulted in sub-optimal clinical expertise and lower standards of patient care.

The current process didn't work and teleconferencing technology had traditionally been ruled out for several reasons: the cost for usage was too high; data was too difficult to share and review; and overall user experience was low.

To improve standards of patient care and make better clinical decisions as a whole, WLCN commissioned a feasibility study and service specification for an effective collaboration system. The requirements of the system were that it would need to link eleven (11) hospital sites across the network in order to enhance MDT working and improve the standard of patient care while being highly collaborative and easy to use. Led by project manager Alan Lowe, decision panels were established which were clinically driven rather than financially or technologically focused.

Innovative solution offers painless collaboration

A cutting edge solution was chosen from the USA that went beyond the normal boundaries and service offerings of standard videoconferencing. The chosen solution from IOCOM is a highly-customisable, software-based solution that allows multi-site simultaneous connection, multi-image displays and can be deployed on any standard PC over an IP network. The solution allows many features that were previously deemed not possible by traditional videoconferencing systems.

This marks the first time a solution of this nature had been deployed by the National Health Service (NHS) – the first use of a true multi-site, multi-image videoconferencing solution that operates over the N3 network. While providing an immersive, high quality audio and video experience, the highly-secure IOCOM system can simultaneously transmit large amounts of clinical information, including PACS & Pathology, cancer information management data and any computer image (e.g. PowerPoint presentations) to all locations in the meeting.

The system is also extremely scalable, which allows a very large number of individuals to meet from various locations such as conference or meeting rooms, small offices, desktop and laptop connections. Participants can also join by telephone and still have access to presented data.

The solution is the first videoconferencing solution to run completely over the NHS's own N3 network. The system has a quality of service which guarantees priority to the audio and video data which ensures reliable performance. The N3 connectivity also guarantees the security of the data and eliminates ISDN call charges.

Saving lives and saving time

Since the system went live, collaborative working and clinical commitment to specialist MDTs has greatly improved. Realised benefits include reduced clinician time spent travelling and subsequently increased front-line clinical time.

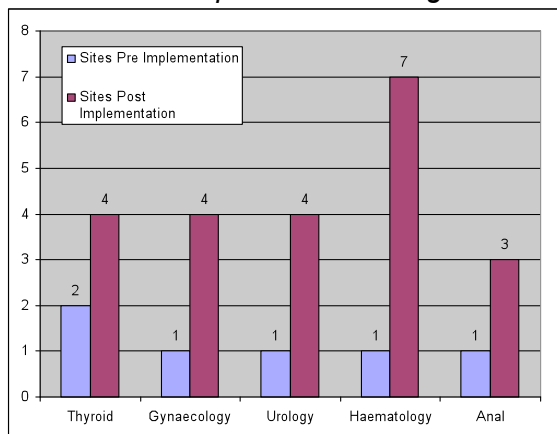
Travel Time Savings (based on two hour roundtrip per meeting average)

| | Number of Staff Att ending MDT via IOCOM* | Weekly Travel Hours Saved | 48 Week Time Savings |
|-------------------------|---|---------------------------|----------------------|
| Consultants | 58 | 116 | 5568 |
| Junior Docs | 15 | 30 | 1440 |
| MDT Coordinators | 11 | 22 | 1056 |
| Managers | 3 | 6 | 288 |
| Nursing Staff | 20 | 40 | 1920 |
| Total | 107 | 214 | 10272 |

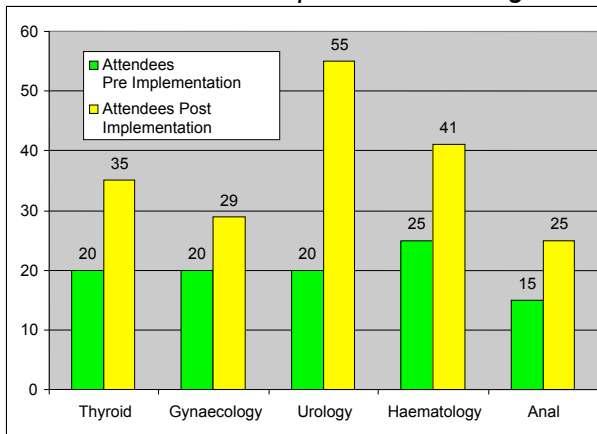
Better collaboration means better decisions

Improved attendance at MDT meetings has resulted in enhanced clinical decisions through greater shared expertise. Attendance at MDT meetings has been monitored to compare pre and post teleconferencing system implementation. A number of new specialist MDTs have now been able to become established since the system went live.

Number of sites per MDT meeting



Number of attendees per MDT meeting



Better technology greatly reduced costs

The running costs of the system have reduced significantly as a result of switching from ISDN to IP. The solution operates on the N3 network so there are no running costs.

| ISDN SAVINGS | |
|--------------------------------------|------------------|
| Total call charges costs | £96'192 |
| Line Rental | £13'200 |
| Support | £21'200 |
| Total overall saving per year | £130' 592 |

Top level user experience increases confidence

User satisfaction has been very high to date, with a survey showing more than half of users rated the system as either “good” or “excellent.” It is anticipated that satisfaction levels will continue to improve as initial operational issues are resolved and user confidence grows.

Model for even greater future success

This model of clinical engagement has provided a framework for future service improvement projects. The Cancer community is recommending the solution as the future teleconferencing package of choice based on clinician requirements. It is endorsed by the National Cancer Tsar and discussions are ongoing for roll-out across London and England.

For more Information contact the cancer network on communications manager Gayle Budden on 0207 150 8106 gayle.budden@westminster-pct.nhs.uk



The project won the National Videoconferencing project of the year at the National Audio Visual industry awards 2007



The project was chosen and presented at the “N3: Bringing It All Together” event at the BT tower



An academic poster on the system was chosen to be presented at the IHI / BMJ International Forum on Quality and Safety in Healthcare in Paris 2008