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# MediDial cards: a quick win for service improvement

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## Abstract

One of the key roles of a junior doctor is co-ordinating the care of their patients and communicating with different departments or specialties within the hospital. To do this, junior doctors often spend a lot of time on a daily basis contacting the hospital switchboard in order to locate a required bleep/extension/fax number, or trying to navigate an intranet based directory which can be difficult to use. We aimed to improve this task for junior doctors as a pilot project for engaging junior doctors in service improvement.

Our multi-disciplinary team, led by junior doctors and with the support of the Trust, produced and implemented lanyard (MediDial) cards containing common and relevant (fax, bleep, and extension) numbers for use by junior doctors. Through the introduction of our MediDial cards we not only reduced the frequency junior doctors needed to contact the switchboard on a daily basis, but also the length of time spent waiting to speak to an operator. The MediDial cards were also found to be time saving and more useful than the previous intranet based database. Since the introduction of the MediDial cards, the project has been rolled out across the Trust and presented at Grand Rounds as an example of junior doctor led service improvement, aiming to encourage trainees to engage with quality improvement projects.

## Problem

Junior doctors are faced with multiple clinical duties on a daily basis, often creating a significant workload. One of their key roles is co-ordinating the investigations and care of patients through communication with other disciplines. This includes referring to different specialties, requesting and/or following up on investigations, and liaising with other departments.

In order to do this, a large proportion of a junior doctor's day can be spent on the phone and with this often comes contacting the hospital switchboard in order to locate a required bleep, fax, or extension number. This can be not only a time consuming process but also delays junior doctors in completing their necessary jobs. We aimed to address this problem through a junior doctor lead initiative to achieve a service improvement 'quick win' in order to benefit trainees and engage junior doctors in quality improvement.

## Background

The importance of junior doctors being involved in service improvement is being increasingly well documented.[1-4] Foundation trainees are ideally placed to not only recognise areas of potential change, but also help lead and achieve this change. The role of trainees as agents for change is becoming more and more recognised, with the recent Francis report describing junior doctors as 'invaluable eyes and ears' within the hospital environment.[5-6] However, although this need has been identified, the problems arise in actually engaging junior doctors and encouraging them to be involved in quality improvement initiatives.

## Baseline measurement

Foundation year 1 (F1) doctors are the team members most likely to undertake the day-to-day jobs and clinical tasks on the ward. Being based on the wards they form a vital link between patients and delivering effective care: sending referrals, order investigations, and following up on outstanding results. When undertaking these tasks and liaising with other departments at our hospital, staff can currently either phone switchboard in order to find a required extension, bleep, fax number, or access an intranet based directory with a database of numbers for the hospital.

We surveyed F1 doctors in a large teaching hospital to assess how often they contacted the switchboard on an average day and how long they spent trying to obtain necessary numbers. We also assessed how easy they found navigating the current online intranet directory system and whether a change in this system would be beneficial to their working life. A response rate of 73% was achieved.

In our baseline survey, we found junior doctors were most often (41%) contacting switchboard on average between five and eight times a day (with 17% contacting the switchboard on average over eight times a day). Many (39%) often spending over one minute waiting get through and speak to an operator. While most junior doctors would use the current intranet based directory, (76%) stated the directory was not easy to use in order to find the required number. All (100%) of F1 doctors surveyed not only strongly agreed that they would like to own a card containing relevant and useful numbers, but also that this would save them time during their working day.

See supplementary file: ds3834.docx - "MediDial PDSA Cycle 1"

## Design

Through our baseline measurements, we established the most common numbers (extension, bleep, and fax) used by foundation

trainees on a daily basis. This was achieved through input and suggestions from junior doctors as part of our baseline survey and also discussion with the switchboard staff. All numbers were confirmed for accuracy with the hospital switchboard team and then condensed on to a single double-sided card that could be attached to a lanyard. The MediDial cards were grouped and colour-coded according to bleep, fax, or extension to help users find their required number.

The MediDial cards were then issued to the next incoming cohort of F1 doctors starting in August 2013 at induction for their own personal use. After one month, this cohort of junior doctors was then surveyed to assess the impact and effectiveness of the MediDial cards on their daily practice.

## Strategy

The attached PDSA cycles outline the stages in our cycle. From obtaining our baseline measurement data, implementing our MediDial cards and the results we obtained from resurveying our junior doctors after this.

See supplementary file: ds3833.docx - “MediDial PDSA Cycle 2”

## Post-measurement

After the introduction of the MediDial cards, compared with our baseline measurements, junior doctors were not only on average contacting the switchboard less frequently on a daily basis (31% versus 49% three to four times a day; 41% versus 26% five to eight times a day), but also the length of time F1 doctors spent waiting to speak to a member of switchboard staff on the phone reduced (39% versus 16% for over 1 minute).

We found F1 doctors used their MediDial cards as their first source for a required number (93%) and strongly agreed (81%) that the card had been useful for them. Junior doctors stated the MediDial cards not only saved them time during their working day (98%) but also it was more useful than the online directory for finding a relevant number (81%). As doctors are now calling the switchboard less frequently on a daily basis, our aim is that this intervention will decrease the volume of traffic going through switchboard during the working day so they may handle other requests and improve the efficiency of their service. This result is suggested in our findings but would need further investigation for validation.

See supplementary file: ds3104.docx - “MediDial Card Responses”

## Lessons and limitations

Although it was a relatively simple concept, this project has been highly successful and brought about a change in the daily life of junior doctors. The MediDial cards were initially intended for foundation trainees but due to the response following their implementation are now being used by trainees of all grades. One unforeseen outcome was their use for locum doctors working at our Trust. Locum doctors were able to have a MediDial card when starting at their morning or evening handover to assist them when working in a possibly unfamiliar trust, an aspect of the project which has been very well received.

Due to the positive feedback and effectiveness of the MediDial cards since being introduced, the project has been up scaled for cards to be available to all clinicians throughout the Trust. There has also been an agreement with the service improvement team and clinical leads that the MediDial cards will be reviewed every six to twelve months to ensure numbers are up to date and new cards printed again for medical staff use. While the project is scalable and could be developed in to an app or smartphone tool, the success of the MediDial cards has been in its simplicity. While the switchboard can always be contacted if needed for the most common numbers, the simple and cheap MediDial card means they are always to hand when needed.

As the project has been free to implement and shown to be beneficial to trainees, this project can be sustainable into the future. As a template has been created for the MediDial cards, it must simply be reviewed at given intervals, updated and then reprinted, requiring minimal maintenance. This template also has the potential to be taken to other Trusts, have the relevant numbers inserted and the MediDial cards introduced there for trainees. This is a future goal that we aim to achieve with this initiative.

## Conclusion

We identified a common problem and source of frustration for junior doctors when working. Trying to contact the switchboard is not only a frequent task for junior doctors but can also be time consuming. Through working with different teams within the Trust, a quick win for service improvement has been achieved and is running successfully. The MediDial cards have resulted in junior doctors not only contacting the switchboard less frequently, but also saves time and benefits their everyday practice.

This initiative has also acted as an example of how junior doctors can be involved with service improvement and successfully bring about a change in the clinical environment. The project was free and has the potential to be sustainable in the future with little maintenance. Our future aim is to roll the MediDial cards out across the Trust so they are available to all medical staff evaluating the project’s value and effectiveness on a larger scale to ensure it has a role within the service improvement of the Trust.

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## Declaration of interests

Nothing to declare.

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