

# Anaesthetists view of data sharing

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## Introduction

The current pressure and financial stress experienced within the health care system mandates the use of innovative solutions to lower health-care costs maintaining high efficiency and quality of care. The fast growth of digital data and analysis has paved the way for artificial intelligence and machine learning to have a solid role in planning and implementing healthcare strategies, aiming to achieve better future predictability and to enable efficient utilisation of resources. However, this requires the pooling and sharing of data across the healthcare system for the purpose of analysis. Governmental, legal and media scrutiny and publicity relating to major social media providers and their utilisation of the users' data resonates within the healthcare system and puts forwards the question around patients' data safety and utilisation. Bearing that in mind, we reached out to collect the views of the anaesthetists regarding sharing of data and to test whether as practicing clinicians their opinion is influenced by their own data sharing practices.

## Methods

We designed a survey and published it online targeting anaesthetists at different career levels within a school of anaesthesia. Respondents were targeted through their contact email. We sought to compare their views and practices of data sharing in relation to their personal and working lives. This was examined through comparison of the use of loyalty card and social media systems.

## Results

There were a total of 45 respondents to the online survey. More than 50% of the responders were anaesthetic consultants with the remaining non-consultant population comprising of specialty doctors and trainees. Around 55% agreed to have adverts from companies offering services or products that are of interest to them.

While consultants and non-consultants have similar comfort in receiving adverts from companies, non-consultants appear to believe that sharing data will improve healthcare service despite them being less directly involved in service changes and are also more prepared to share their data for this.

Loyalty card holders appear to be more comfortable having companies offering services and products compared to non-holders (56% vs 28%), yet both groups felt that sharing information would improve healthcare service provided with 50% of non-holders being willing to share their information.

There was similar comfort between social media (42%) and non-social media (50%) users to share their information with companies, although those using social media felt much more strongly that sharing information would improve service (83% vs 25%), but this was not translated to when this involved sharing their own data (40% vs 25%).

The majority were happy for their data to be shared within the healthcare system, charity and governmental organisations, however only 15% were happy for their data to be shared within research institutions. The majority of respondents felt that their information within the healthcare system was stored securely.

## **Discussion**

The results show discrepancy between the views of anaesthetists regarding sharing of data. The non-consultant, loyalty card holding, social media using anaesthetist were more likely to approve of sharing data including their own to improve service. However, the absence of a loyalty card did not equate to disapproval in data sharing. In contrast, the lack of a social media account was strongly suggestive of disapproval in data sharing information within the health and non-health related settings. Despite feeling comfortable for the data to be shared with the NHS, the majority did not support that for research purposes. The majority trust the healthcare system and the security of the data, despite recent high profile security breaches including those in the NHS.

## **Conclusion**

To our knowledge, this is the first survey to examine the anaesthetists' views on data sharing.

There are limitations to this survey as respondents needed to be digitally engaged with email in order to complete the online survey and this reflected by the high number respondents who had a social media account.

This survey has highlighted that certain groups are more likely to support sharing of data to improve service and the absence of an online presence is associated with stronger views against data sharing.

No doubt that the use of big data has much potential and benefit for the public and their health. There is a need to develop consistent and rigorous approach to data sharing to be able to utilise technologies such as artificial intelligence and population health in healthcare. However, the impact on the views on data sharing of the public and the healthcare professional due to the recent high profile examples of inappropriate or unauthorised use by social media and technology giants has yet to be assessed.

It nevertheless remains important that healthcare professionals continue to be engaged and educated to ensure data quality and the benefits and risks of data sharing.

## **References**

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