**Title:** What's wrong with WhatsApp?

Name of Corresponding Author: Dr Shaan Hyder, Anaesthetics Specialty Registrar.

Address: The Whittington Hospital, Magdala Avenue, London, UK.

E-mail: shaan hyder@hotmail.com

**5 keywords:** Medical Apps, Assistive technology, Communication, MHealth, Security

Word count: 1261

# **Co-authors:**

Rebecca Hatton – Psychiatry Core Trainee, Central and North West London NHS Foundation Trust, London, UK.

Kim Tolley – Regional Liaison Advisor for South London, General Medical Council, London, UK.

Julia Hillier – Associate Medical Director of Education and Training, Chelsea and Westminster Hospital, London, UK.

## **Contributorship Statement:**

Shaan Hyder - Involved in the planning, conduct and reporting of the work described in this article.

Rebecca Hatton – Involved in the planning and reporting of the work described in this article.

Kim Tolley – Involved in the critical revision of work and final approval of the version to be published.

Julia Hillier – Involved in the critical revision of work and final approval of the version to be published.

### What's wrong with WhatsApp?

# **Background**

With the birth of social networking sites, use of blog and Twitter accounts during conferences, and the introduction of iPads in medical schools and hospitals across the UK, it is no wonder that the use of WhatsApp to communicate between clinicians has been enthusiastically embraced by some. With currently over 1.5 billion monthly active users, it acts as a bleep, computer, camera, audio recorder, data storage device and telephone. A recent study also concluded that half a million National Health Service staff are using messaging applications, such as WhatsApp. With a working wireless or data connection, users can send free messages to each other via end-to-end encryption.

## **End-to-end encryption**

A message is forwarded through a WhatsApp server to the recipient. When the recipient has internet connection, the message is received on their device and deleted from the server. If the message is not delivered within 1 month, it is automatically deleted from the server. End-to-end encryption was introduced in April 2016 to protect messages from 'hackers' as they are delivered. This feature ensures messages can only be unlocked by the recipient, so only they can read the message.

Of 28 investigations closed by the General Medical Council (GMC) between January 2015 and June 2017, 3 were related to doctors' use of WhatsApp.<sup>5</sup> Good Medical Practice states that 'you should remember when using social media that communications intended for friends or family may become more widely available'.<sup>6</sup> So are clinicians using WhatsApp cautiously? Who is invigilating its use? Or have we stepped into a grey area where the traditional bleep system is being replaced by a new era of communication.

Despite the widespread use of WhatsApp, it appears clinicians are uncertain what kind of use is acceptable and how to maintain patient confidentiality while using it.<sup>7</sup> The GMC is clear that 'the standards expected of doctors do not change because they are communicating through social media rather than face-to-face'.<sup>8</sup> These obligations also include the duty to protect the patient's privacy. But what does this actually mean for doctors using WhatsApp? Some articles suggest that now WhatsApp has end-to-end encryption it can be used for patient data.<sup>1 4</sup> However, even with encryption there are potential issues: loss or theft of phone, other friends or family having access to an unlocked device, and potential to send messages to the wrong recipient.<sup>3 9</sup>

This article aims to highlight the successes of WhatsApp use in the clinical environment, but also its disadvantages. Currently there are no specific GMC guidelines for the use of WhatsApp in secondary care. Collaboratively, alongside a GMC Regional Liaison Advisor, we have produced our 'Top Tips' for using WhatsApp within hospitals.

# Advantages and disadvantages of using WhatsApp in secondary care

#### Advantages of WhatsApp:

- If group messaging is used, this up-to-date knowledge facilitates handover. 10
- Faster, real-time responses than traditional bleep system.<sup>2</sup>
- Dampens team hierarchy, allowing juniors to feel able to engage with their seniors and seek help more readily. 10 11
- May reduce clinical incidents and enhance patient safety as seniors can monitor what the

team is doing.<sup>12</sup>

- Promotes sharing of learning resources, for example, journal articles and upcoming conferences 11
- Can make administrative tasks easier, for example, organising leave or rota changes, and telling group about academic teaching or meetings. <sup>10</sup>
- Quick and easy—a computer is not required.<sup>1</sup>
- Negligible cost.<sup>2</sup>
- Multiple group discussions can take place. <sup>10</sup>

# Disadvantages of WhatsApp

- Confidentiality and privacy concerns. 14
- Increased workload if responding to a large volume of WhatsApp questions. 13
- May distort work—life balance with team being 'constantly available'. 13
- Message may be misconstrued compared with verbal handover.<sup>1</sup>
- Worsens professional verbal communication and handover.<sup>1</sup>
- Decisions made on WhatsApp are not automatically noted as a part of the medical records.<sup>2</sup>
- Level of urgency is lost. 10
- Reduces autonomy of registrars, who are traditionally bleeped prior to the consultant.<sup>4</sup>
- Risk of too much information to too many. 13
- Photos stored on the recipient's device need to be actively deleted. 11
- Risk of identifying the wrong patient to which the message refers to. 13

# Top tips for the safe use of WhatsApp

- Use patient non-identifiable information at all times. Bear in mind if too many individual pieces of information are added together, they could identify the patient. <sup>14</sup> A patient's initials and bed number could be enough to identify a patient by a third party. Ideally, use only one form of identifiable information and a brief description of their clinical care. <sup>2</sup> Be aware though that this could lead to confusion and risk to patient safety.
- With the formation of WhatsApp groups, it is important that everyone has the latest addition of WhatsApp installed. Otherwise the conversation is not encrypted. Group security can be improved further by visibly comparing a unique 60-digit encryption number or Quick Response code to ensure no one can intercept your messages.
- Images showing a patient's face must be blurred to maintain confidentiality. <sup>11</sup> It is important to remember that all images received via WhatsApp are automatically saved on 'Photos' in the phone. This command must be turned off.
- The GMC confidentiality guidance states that we should consider whether patients would be surprised to learn about how their information is shared.<sup>6</sup> You must respect the patient's privacy when using WhatsApp. Remember that information about your location may be embedded within photographs—make sure you have this setting turned off on your phone too.
- You must protect your phone with a biometric personal identification number or password.<sup>4</sup>
- Any group member who leaves the hospital must be removed from the group, to avoid unnecessary information to those not directly involved in patient care. 12 13
- Decisions made on WhatsApp must be noted in the patient notes as a legal requirement.<sup>2</sup>
- Remember that people can take screen shots of anything written on social media. Do not write about a person or organisation that may harm their reputation.
- It is important to not rely solely on WhatsApp—problems with internet connectivity may

mean that vital aspects of patient care can be missed if not handed over verbally by team members.<sup>11</sup>

• Be aware of deleting items—they may still remain on iCloud. 15

#### **Discussion**

WhatsApp has become a popular adjunct to clinical work. It can be a fast, efficient tool to communicate quickly with team members in a busy environment. Doctors may relish the use of such a system when compared with a clunky bleep system. It can play an important role in empowering junior clinicians to ask questions to their seniors in a relatively 'safe' environment. However, as with any technology, it has potential downsides. Social media avoids face-to-face conversations between clinicians, meaning we could risk missing important clinical signs that can only be depicted safely through verbal communication. It risks blurring the lines between our work and private time. However for most clinicians, it is the potential confidentiality issues which arise from WhatsApp which are most concerning. Loss of a mobile could result in unintentional disclosure to a third party and be classed not only as a data breech, but certainly a breach in patient confidentiality, a central tenet of the doctor–patient relationship.

Ultimately, WhatsApp could just be the tool we need to remove hierarchical barriers and poor escalation of care, which are often at the forefront of significant incident reports. <sup>12</sup> It is clear that with the increased use of this application, the GMC confidentiality guidelines around social media need to be enforced now more than ever. <sup>8</sup> Currently, there are no written GMC guidelines specifically on the use of WhatsApp in UK hospitals. These guidelines must be transparent on the use of this non-medical application as evidence against a doctor.

#### References

- 1. Roh, J., and Kim, J.W., 2016. Is it now safe to use WhatsApp for clinical messaging? *The American Journal of Surgery*; 212(5), pp. 1032-1033
- 2. Siegal, G., et al. 2016. Medical Information Exchange: Pattern of Global Mobile Messenger Usage Among Otolaryngologists. American Academy of Otolaryngology. *Head and Neck Surgery*; 155(5), pp. 753-757
- 3. Martin, C., 2018. Healthcare report. Instant messaging in the NHS. An exploration of the relationship between consumer messaging applications and modern healthcare delivery. *Commontime Limited*: Derby
- 4. Mars, M., and Scott, R.E., 2016. WhatsApp in Clinical Practice: A Literature Review. *The Promise of New Technologies in an Age of New Health Challenges*; 231, pp. 82-90
- 5. Rimmer, A., 2017. Doctors' use of Facebook, Twitter, and WhatsApp leads to 28 GMC investigations. *BMJ*; 358, pp.340
- 6. General Medical Council, 2017 Confidentiality: good practice in handling patient information. *GMC: Manchester*
- 7. Arunagiri, V., and Anbalagan, K., 2016. Communications through WhatsApp by Medical Professionals. *Indian Journal of Surgery*; 78 (5), pp. 428.
- 8. General Medical Council, 2013a. Doctors' use of social media. GMC: Manchester
- 9. Morgan, M., 2017. WhatsApp risks are real, but so are its benefits. *British Medical Journal Opinion*; pp. 359
- 10. Gould, G., and Nilforooshan, R., 2016. WhatsApp Doc? *British Medical Journal Innovation*; 2, pp.109-110
- 11. Kaliyadan F., Ashique K.T., Jagadeesan S., Krishna B., 2016. What's up dermatology? A pilot survey of the use of WhatsApp in dermatology practice and case discussion among members of WhatsApp dermatology groups. *Embase Indian Journal of Dermatology, Venereology and Leprology*; 82(1), pp. 67-69
- 12. Johnston, M.J., et al. 2015. Smartphones let surgeons know WhatsApp: an analysis of communication in emergency surgical teams. *The American Journal of Surgery*; 209, pp. 45-51
- 13. Dorwal P., et al. 2016. Role of WhatsApp Messenger in the Laboratory Management System: A Boon to Communication. *Embase Journal of Medical Systems*; 40 (1), pp. 1-5
- 14. General Medical Council, 2013b. Good Medical Practice. GMC: Manchester
- 15. Rimmer, A., 2017. How to stay professional while using social media. *British Medical Journal*; 359, pp. 293