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# Formalising triage in general practice towards a more equitable, safe, and efficient allocation of resources

**Daniela Rodrigues and colleagues** argue that triage of all patient requests in general practice could help practices managing demand with limited resources

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In response to the covid-19 pandemic, general practices in England were advised to implement the “total triage” model in which every patient is triaged before booking an appointment.<sup>1,2</sup> Triage refers to the process of choosing the most appropriate time, mode of consultation (eg, in-person or telephone) and healthcare professional (eg, general practitioner (GP) or nurse) to manage each patient request according to clinical need.<sup>2</sup> This model was primarily aimed at minimising the spread of SARS-CoV-2 in the community and in healthcare facilities by reducing the numbers of patients seen in person, but similar triage initiatives had already been proposed and piloted across the country before the pandemic<sup>3-5</sup> in response to the increasing imbalance between patient demand and availability of GP appointments.<sup>6,7</sup>

In disaster settings, triage is crucial because the need for healthcare is typically higher than the available resources and delays in the provision of care could be fatal.<sup>8</sup> The key assumption behind triage in less acute settings where demand exceeds capacity, such as UK general practice,<sup>6,7</sup> is that it can similarly promote a more equitable, safe, and efficient allocation of resources.<sup>9</sup> Although the preferred medium for triage in general practice has been the telephone, interest is growing in using online triage platforms that allow patients to submit a form with their health problem and query to their practice.<sup>10-13</sup> Online triage platforms were highlighted in the recovery plans for the NHS for 2021-22<sup>14</sup> and 2022-23<sup>15</sup> as a channel to embed triage in general practice. They were further stipulated in the general practice

contract agreement<sup>16</sup> and the investment and impact fund.<sup>17</sup>

Debate is ongoing about whether triage of all patient requests is necessary outside the pandemic, and whether online written communication is an appropriate medium to deliver it.<sup>18,19</sup> We examine how a formal process of triage using an online platform that captures all patient requests, regardless of how they are made, could provide a more equitable, safe, and efficient way of managing patient demand with limited resources.

## Approaches to triage in general practice

Table 1 lists four common approaches to triage in general practice, ranging from advanced booking with no triage (appointments allocated on a first come, first served basis) through informal triage by reception staff to triage by a member of the clinical team. Only triage of all patient requests by a member of the clinical team by telephone or through an online triage platform can support appointment allocation based on clinical need as set out in the NHS constitution.<sup>20</sup> Although multiple contact modes (online form, telephone, in-person, etc) are welcome, any approach that includes a mix of no triage, informal triage, and triage of some, rather than all, patient requests may result in different rules being applied to different people without a clinical justification. Instead, the provision of clear and explicit guidelines to support decision making in general practice may ameliorate ethical concerns that often arise in publicly funded health services, while improving their quality.<sup>8,9</sup>

Table 1 | Common approaches to triage in general practice.

	No triage (advanced booking)	Informal triage	Triage using telephone	Triage using online platform
Person responsible for capturing patient's reason for contact	—	Non-clinical reception staff	Member of clinical team	Patient, carer, or non-clinical reception staff on patient's behalf
Triage process	None	Non-standardised questions	Non-standardised questions	Standardised questions
Person responsible for triage	—	Non-clinical reception staff	Member of clinical team	Member of clinical team
Appointment basis	Equal priority to all patients, irrespective of clinical need	Unknown	Priority to patients* with higher clinical need	Priority to patients† with higher clinical need

\* Patients who managed to speak with a member of the clinical team using the telephone, but not necessarily all patients who tried to contact the practice through that channel.

† All patients if requests made in person or by telephone are also included in the online platform.

There are two key operational differences between triage using the telephone and online platform that might affect the extent to which it is possible to efficiently, safely, and equitably manage patient demand. With telephone triage, a member of the clinical team captures the patient's reason for contact during the call, whereas filling in an online form requires time from only the patient, carer, or non-clinical reception staff on the patient's behalf. Online triage platforms also have unlimited capacity to capture patient requests. By contrast, telephone triage is limited by the number of lines and staff available, with patients often left "hanging on the telephone,"<sup>21</sup> invisible to the system.

### Emerging evidence on triage in general practice

Despite the near universal challenge of accessing general practice,<sup>22</sup> few attempts have been made worldwide to develop a formal process for allocating appointments in this setting. The few exceptions include Sweden, the Netherlands, and more substantially the UK. In Sweden, since 2008, some primary healthcare centres have formalised triage, typically by a nurse either in-person or by telephone, with associated efficiency gains because of more patients being effectively treated with the same resources.<sup>23-24</sup> Online triage platforms were introduced in some Swedish centres in 2019, but challenges to their wider adoption remain.<sup>25</sup> It has been reported, however, that if the online form contains high quality information, the asynchronous nature of this triage mode might promote more accurate assessment than telephone triage.<sup>25</sup> In the Netherlands, telephone triage has been performed in some practices mostly by practice assistants, with research describing the process as efficient while highlighting the need for triage training similarly to that for out-of-hours services.<sup>26</sup>

In the UK, different triage approaches have been considered by practices which differed in terms of triage officer (GP or nurse),<sup>3-4</sup> type of appointment being triaged (same day or all),<sup>3-5</sup> triage system (telephone or online triage platform),<sup>5-11-27</sup> and operating time of triage (24/7, 8 am-5 pm, 2 hour window). The Esteem trial<sup>3-4</sup> at 42 English practices reported in 2014 that GP led and nurse led telephone triage of requests for same day GP appointments was associated with a 33% and 48% increase in the mean number of contacts per person in the 28 days after their initial request compared with usual care, but at equivalent costs. Workload shifted from face-to-face to telephone consultations and from GP to nurse.<sup>3-4</sup> A 2017 observational study of telephone triage of all patient requests ("telephone first") in 147 English practices similarly reported a reduction in face-to-face consultations but a substantial increase in telephone consultations, leading to an overall increase in GP consulting time.<sup>5</sup> The authors highlighted, however, that effect on workload varied across practices and concluded that many patient requests can be managed over the telephone.<sup>5</sup>

Qualitative analyses from the Esteem<sup>3-28</sup> and telephone first<sup>29-30</sup> studies suggested that many problems with telephone triage are related to its implementation rather than the principle of triage. Ringing back the patient and waiting for the call back were a considerable source of frustration for healthcare professionals and patients, respectively.<sup>3-29</sup> Some patients and staff considered triage by the clinical team to be a more equitable, safe, and efficient approach to allocating appointments compared with the traditional first come, first served model.<sup>3-28-30</sup>

Research on triage using an online platform in general practice is still in its infancy. A 2019 rapid review of "digital first primary care"—that is, when the online or digital channel is the patient's first point of contact with the system<sup>31</sup>—found "little high quality evidence."<sup>32</sup> This may reflect the low uptake of online triage

platforms before the pandemic,<sup>33-36</sup> with a 2017 observational study<sup>36</sup> of 32 practices in south west England reporting an average of two online requests per 1000 patients per month. While some patients seemed to benefit from online platforms,<sup>35-37</sup> staff perceived this new access route as adding to the workload because it lowered the threshold for patients to contact the practice, and most online requests resulted in a face-to-face or telephone consultation.<sup>37-38</sup> Of note, when these studies were conducted, few practices were equipped with the functionality to respond to patients using online messaging, but since the pandemic many now communicate with patients that way.<sup>39</sup> More recently, the Health Foundation reported that use of total triage and remote consultation was associated with fewer emergency department visits<sup>40</sup> without a detrimental effect on prescribing patterns.<sup>41</sup> Although these are promising findings, peer reviewed quantitative studies are needed to assess the effect of triaging all patient requests through a single platform across different domains of quality of care.

### Potential challenges are improvement opportunities

An online triage platform can function as a repository of patient requests, allowing unmet need to become visible and creating a richer understanding of patient demand.<sup>42-44</sup> However, the potential increase in demand is concerning for practices already struggling to meet current volumes of patient requests.<sup>45</sup> This is perhaps counterintuitively where triage could be of most value: screening and prioritising patients with higher clinical need allow practices to deal with the most acute risks while minimising the number of appointments given to patients with self-limiting conditions, which usually resolve on their own with no long term health consequences. Furthermore, some patient requests can be resolved through online messaging alone, freeing up time for other patients.<sup>27-46-47</sup>

Another concern relates to the stress, time, and temporarily reduced efficiency that accompanies the adoption of a new process using an unfamiliar online triage platform, which itself is still evolving. Staff members, for example, are likely to need training on various aspects of using the online platform, such as submitting requests on patients' behalf. To make sure the platform is comprehensive yet easy to use by all, online providers should continuously collect and incorporate feedback from users. Although practices in England have received financial and operational assistance to install an online triage platform,<sup>17-27-48</sup> a national commitment to long term support can encourage practices to fully integrate the platform towards the total triage model.

Safety concerns have been raised about patients submitting emergency or urgent requests through the online triage platform and then awaiting a response rather than immediately seeking care elsewhere.<sup>49</sup> Some online platforms screen for symptoms related to potential life threatening conditions and signpost patients to urgent care pathways if needed, and others have the capability of highlighting or flagging urgent requests as soon as they are submitted.<sup>27</sup> Although these algorithms have been described as "overly cautious" by some,<sup>49</sup> they may mitigate concerns about patient safety during early stages of adopting the technology.

The range of patient requests that can be safely accommodated through an online triage platform is still unknown, but the ability to effectively measure patient demand is an opportunity for continuous monitoring, research, and learning for healthcare professionals. Better interoperability with existing practice clinical software so that, for example, online requests could be coded directly into the patient record, would allow outcomes to be examined and provide data to improve the categorisation of patient

requests and identify those that can be safely dealt with by online messaging.

Finally, many have acknowledged the potential of online triage platforms being used to bypass the traditional system to obtain a quicker appointment, disadvantaging patients who do not have the skills or resources to use the online platform.<sup>33 34 38 49–51</sup> To mitigate this risk, the form should also be completed for patients who call or visit the practice to make an appointment, either by the patients themselves or with the help of reception staff.<sup>2</sup> Capturing all requests in a single platform is important to avoid differential treatment based on the contact mode. Instead, a clear set of criteria for triage should be developed that is understood and agreed by patients and the public, and based on clinical need. In line with Healthwatch's call for "a formal review of the ways people access general practice services,"<sup>52</sup> it can be equally important to understand how patient requests from multiple channels are being managed by practices, including the factors influencing triage decisions.

## Conclusion

Triage cannot fix the imbalance between supply and demand in general practice, but could allow for a more equitable, safe, and efficient way of managing demand with limited resources. Online triage platforms can provide a record of all patient requests and facilitate the allocation of appointments to those with higher clinical need. Because of the transformational nature of technology, these platforms need to be closely monitored to minimise safety risks and promote further development. It is worth remembering that many patient requests are now managed over the telephone,<sup>5 12 13</sup> but the telephone had to overcome several barriers to achieve widespread adoption in clinical practice.<sup>53–55</sup> There may also be lessons to learn from the experience of introducing and refining triage in emergency departments worldwide. This has evolved from an intuitive to a more structured and standardised process,<sup>56 57</sup> conveying objectivity and transparency to the process of care in a challenging clinical environment akin to general practice. The complexity of clinical need in general practice warrants further research informed by patients and the public on the effects of a unified approach to triage using a single platform on quality of care to ensure unintended consequences do not outweigh the likely benefits.

### Key messages

- Triage of all patient requests in general practice could allow for a more equitable, safe, and efficient way of managing demand with limited resources
- Clear criteria should be established for triage in general practice that are understood and agreed by patients and the public, and based on clinical need
- Online triage platforms can support triage by functioning as an electronic record of all patient requests, including those made in person or by telephone
- More evidence is needed on the effect of triaging all patient requests using a single platform on quality of care to ensure unintended consequences do not outweigh the likely benefits

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