Candesic undertook an impact assessment of the online triage platform ‘eConsult’ across 3 primary care settings: two practices and one ‘eHub’ between December 2017 and January 2018. Overall, eConsult has the ability to reduce GP appointment waiting times, reduce ‘Do Not Attend’ rates, improve triage to most appropriate care worker, and deliver home ‘query closure’ via a unique proprietary algorithm; all whilst maintaining positive patient satisfactions rates.

**• Practice 1 key findings following eConsult implementation**
- Appointment waiting times remained static, but improved direct triage to most appropriate care setting,
- Increased productivity of GPs, e-consulting with 60 patients per day plus more relevant, targeted consultations,
- Positive patient satisfaction with 84% either satisfied or very satisfied with the service.

**• Practice 2 key findings following eConsult implementation**
- GP waiting times fell significantly from 11 working days to 1 day, well below the national average of 13 days,
- Triaging direct to HCA and nurse triage sessions more than tripled,
- GP Do Not Attend (DNA) rates reduced from 7% to 4%,
- Clinical staff felt eConsult has improved their efficiency, but admin staff reportedly less convinced.

**• eHub key findings following eConsult implementation**
- eHub is a group of 14 different practice so waiting time data was inconsistently recorded,
- Across the group eConsult delivered 86% remote closure rate,
- Patient experience of eConsult generally positive (71% either very satisfied or satisfied).
There are a number of additional steps to arrive at realistic ROI estimates for eConsult

KEY FACTORS FOR ROI ESTIMATION

- Well designed methodology for pre- and post-implementation evaluation
- Full economic modelling of patient costs by cohort and presentation
- Integration of eConsult and EPR data

Effective ROI Estimate
eConsult has been live in this practice for over two years; however in the last year a robust publicity and processing strategy came into place

### Practice 1

<table>
<thead>
<tr>
<th>Profile</th>
<th>eConsult operational model</th>
</tr>
</thead>
<tbody>
<tr>
<td>List size</td>
<td>14,351</td>
</tr>
<tr>
<td>eConsult launch date</td>
<td>Oct 2015</td>
</tr>
<tr>
<td>eConsults submitted</td>
<td>10,321</td>
</tr>
<tr>
<td>Estimated GP appointments saved</td>
<td>6,193</td>
</tr>
<tr>
<td>eConsult users directed to self-help</td>
<td>10%</td>
</tr>
</tbody>
</table>

Sources: eConsult data; interviews; Candesic analysis
eConsult fares favourably when tested against the three key performance indicators: efficiency savings, ROI and patient access. Greater data collection of eConsult outcomes is needed to establish a more accurate picture of the software’s true impact.

### Practice 1
**Dashboard**

#### KEY PERFORMANCE INDICATOR | ECONSULT IMPACT SUMMARY
--- | ---
Efficiency savings | • An example of a well-established eConsult implementation,
• eConsult has proven effective in directing patients to more appropriate care pathways,
• e-reports generated via the platform have increased the efficacy and value of face-to-face patient primary care consultations.

Q | How can eConsult outcome data be improved to enable estimation of remote closure rates?

Return on investment | • There are clear savings identified, providing evidence for a positive ROI,
• Software implementation and additional administrative staff are costs to the practice,
• However, reducing GP sessions by one per week outweighs costs in this case.

Q | How many appointments are avoided and for which presentations; what would be their cost to the practice and revenue generated?

Patient access | • Waiting times have increased, representing worsening patient access,
• An increasing list size and recent staff shortages can account for worsening patient access,
• eConsult has mitigated the pressures on the practice and been well received by patients.

Q | What is the correlation between the pressures a practice is under and the beneficial clinical, operational and financial impacts of eConsult?

**Sources:** interviews; data; Candesic analysis
eConsult has been live at this practice for nearly three years; however only in the latter half of this period has a robust publicity and processing strategy come into place.

**Practice 2**

**Profile**

- **List size**: 22,970
- **eConsult launch date**: Apr 2015
- **eConsults submitted**: 24,633
- **Estimated GP appointments saved**: 14,780
- **eConsult users directed to self-help**: 10%

**eConsult operational model**

- Receptionist script or direct online access are the two entry points for eConsult
- All standard/routine appointments via a nurse-led triage team which reviews eConsults and then responds to the patient

**Total remote closure**

**F2F appointment**

**Telephone appointment**

Sources: eConsult data; interviews; Candesic analysis
eConsult fares favourably at Practice 2 for efficiency savings and patient access. But data collection of eConsult outcomes is needed to establish an estimate of ROI, and the practice should work on improving patients' satisfaction of the service to maximise the impact of eConsult.

**Practice 2 Dashboard**

**Key Performance Indicator**

<table>
<thead>
<tr>
<th>Efficiency savings</th>
<th>EConsult Impact Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A nurse-led triage model has been adopted, demonstrating flexibility in leveraging clinical staff in the eConsult platform,</td>
<td></td>
</tr>
<tr>
<td>• Clinical consultations are more appropriate, and appointment occupancy has increased,</td>
<td></td>
</tr>
<tr>
<td>• Universal eConsult triage is time consuming and the model adopted will continue to be developed.</td>
<td></td>
</tr>
</tbody>
</table>

**Q** Which balance of clinical and administrative staff produces most effective triage?

<table>
<thead>
<tr>
<th>Return on investment</th>
<th>EConsult Impact Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>• They do not record eConsult outcomes data</td>
<td></td>
</tr>
<tr>
<td>• Patient feedback indicates that the reduced conversion to face-to-face GP appointments may be overestimated,</td>
<td></td>
</tr>
<tr>
<td>• They plan on installing an outcome tracking tool that will support the generation of an evidence base in support of eConsult’s benefits.</td>
<td></td>
</tr>
</tbody>
</table>

**Q** What is the anticipated utility of evidence from the planned outcome tool; how can its benefit be maximised?

<table>
<thead>
<tr>
<th>Patient access</th>
<th>EConsult Impact Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>• They have experienced a significant reduction in routine waiting times during the period of eConsult’s use,</td>
<td></td>
</tr>
<tr>
<td>• Not all patients endorse the use of eConsult, which may be hampering realisation of its full potential,</td>
<td></td>
</tr>
<tr>
<td>• Younger patients, those at University, may be taking greater advantage of eConsult than older patient cohorts.</td>
<td></td>
</tr>
</tbody>
</table>

**Q** How can patients be profiled within a practice to understand where it will be of greatest value and for whom?
The eHub, the central aggregator of eConsults for 14 practices, has been live for just over a year now.

**eHub Profile**

- **List size (14 practices):** >100,000
- **eConsults submitted:** 2,743
- **Estimated GP appointments saved:** 2,358
- **eConsult users directed to self-help:** 29%

**eConsult operational model**

- Receptionist script or direct online access are the two entry points for eConsult submission at each practice.
- Live eConsults drawn from all participating practices and processed by a core group of GPs.

**Summary**

Sources: eConsult data; interviews; Candesic analysis.
eHub operates a unique model of eConsult that has enabled it to deal with a high throughput of submissions in its first year, converting a relatively small proportion to F2F GP appointments and reaping the benefits of efficiency and financial savings, plus better patient access.

### eHub Dashboard

<table>
<thead>
<tr>
<th>KEY PERFORMANCE INDICATOR</th>
<th>ECONSULT IMPACT SUMMARY</th>
</tr>
</thead>
</table>
| Efficiency savings        | • eHub has a more robust means of collecting eConsult outcome data and this provides support for efficacy,  
                            • There is a comparatively small proportion of face-to-face consultations through eHub,  
                            • Adoption of eConsult through eHub has increased rapidly throughout the first four quarters. |
| Return on investment      | • Evaluation of the eHub performance metrics suggests strong positive ROI performance,  
                            • Over the course of its first year in operation, eConsult's adoption has increased significantly,  
                            • The capacity of eHub to manage this increasing demand may not be sufficient |
| Patient access            | • eConsult patient satisfaction is good, and this likely contributes to the rapid rate of adoption,  
                            • Patient feedback data reflects eHub's impressive low conversion rate of eConsults to F2F GP appointments,  
                            • Patients prefer using eConsult instead of booking a face-to-face appointment. |

**Q** What can be learnt from evaluation of eHub data that could support improved design for further studies to demonstrate eConsult’s efficacy?

**Q** Can the ROIs of eHub be replicated in more traditional primary care practices?

**Q** How should future studies be designed to collect cotemporaneous patient satisfaction with eConsult experience?

Sources: Candesic analysis
Appendix

eConsult ROI estimates

Practice 1
• Totally Remote closure (e.g. prescription, sick note)
  • One eConsult processed remotely in 3 minutes\(^1\) saving 6-7 minutes = £23.40 saving per remote closure (3.6\(^2\)x6.5)
  • Totally remote savings = (15% 10321 = 1548) eConsults x £23.40 = £36,223
• Telephone closure – average 4 minutes\(^1\)
  • 3 minutes eConsult (3x£3.90) + 4 minutes telephone (4x£3.65) =£26.30. savings = £9.70 per telephone consult
  • Tele savings = (30% 10321 = 3096) eConsults x £9.70 = £30,031
• Total potential savings (remote + tele) = £66,254

eHub
• Days in operation 2017 = 348 (4hrs/day)
• Totally Remote closure (e.g. prescription, sick note)
  • Totally remote eHub savings = (26% 2743 = 713) eConsults x £23.40 = £16,668 (£48/4hr session)
• Telephone closure
  • Tele eHub savings = 1646 eConsults x £9.70 = £15,964 (£46/4hr session)
• Total potential eHub savings (remote + tele) = £32,632 (£94/4hr session)

References
• 1 – eConsult pilot data
• 2 - Unit cost GP appointment = £36 per 9.22 minute appointment
• Ref - PSSRU (ref; PSSRU - Unit Costs of Health and Social Care 2016) [http://www.pssru.ac.uk/project-pages/unit-costs/2016/index.php]