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Responding At Patient’s Time of Need: Scaling Rapid Access To Evidence-Based Treatment Plans

Ramarajan N1,2, Srivastava G1,2, Begum F1,2, Gupta S1, Pramesh CS2,3, Badwe RA3,

Background

• Imbalanced oncologist to patient ratios worldwide: ~23,000:15M in USA – 1600:1.8M in India; impedes access to expertise.

• Cancer patients feel intense anxiety, often racing to start treatment at non expert centers.

• 78% of patients received evidence based treatments recommended through Navya online expert opinion service [ASCO 2017].

• Navya clinical informatics based mobile ExpertApp and patient service combines evidence, patient preferences, and quick review from expert oncologists to recommend tailored treatment plans.[SABCS 2017].

• We study the impact of rapid evidence based expert treatment plans in relieving patient anxiety.

Methodology

• Inclusion Criteria: Patients who did not receive subsidy for an online expert opinion from Navya between September 1st 2017 and April 30th 2018.

• Prospectively phone follow up with all patients- Were you relieved to receive an expert opinion in [x] days? Does it matter to you to receive an expert opinion report in 1 day?

• Preliminary treatment recommendations based on Navya evidence engine and experience engine [SABCS 2014, 2016] were shared. Subsequently, expert opinion reports were shared after expert review

Table 1 – Relief In Patient Anxiety Due To Rapid Expert Treatment Plans

<table>
<thead>
<tr>
<th># of days to get expert opinion report</th>
<th># of Patients</th>
<th># of patients who responded to follow up</th>
<th># of patients who were relieved to get the expert opinion report in “x” # of days.</th>
<th># of patients who were not relieved</th>
<th>Of patients who were not relieved, # of patients who said time really matters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>128</td>
<td>106</td>
<td>103</td>
<td>97.16% (±3.2)</td>
<td>3</td>
</tr>
<tr>
<td>3-3+</td>
<td>573</td>
<td>437</td>
<td>365</td>
<td>83.52 (±3.8)</td>
<td>72</td>
</tr>
</tbody>
</table>

Figure 1 - Navya: How it Works (Adapted from ASCO 2017)

STEP 1: Collection of clinical information for online decision making including patient preferences and constraints

STEP 2: Clinical Informatics System generates an Evidence and Experience based Rx Recommendation

STEP 3: System output enables Multidisciplinary Expert Opinion and Delivery to Patient

Results

✓ 72% (543/701) patients responded to follow-up.

EVIDENCE AND EXPERIENCE ENGINE REPORTS

✓ Preliminary reports were shared in median time of 3.37 hours, resulted in 90% time saving vs expert opinion reports.

✓ On 10% of the preliminary reports, expert added information such as de-escalating therapy (19/31) and additional diagnostic tests (6/31)

EXPERT OPINION REPORTS

✓ 97% [±3.2] were relieved to receive expert opinion reports in 1-2 days (103/106) vs 83% [±3.8] for 3+ days (365/437) (Table 1).

✓ 83% of patients who were not relieved by expert opinion reports despite 3-3+ days turnaround stated that it would matter to receive expert opinion reports in 1 day (60/72) (Table 1).

Conclusion

Navya relieves patient anxieties by responding at the time of need with evidence based treatment plans.

Scaling such health services technologies to patients worldwide is feasible.

Expanding the reach and impact of such a service to USA and globally, can maximize outcomes for patients.

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