GlobalSurg: the power of crowdsourcing surgical data

RCPSG, FRIDAY 2ND NOVEMBER 2018
STUART J FERGUSSON
You can’t improve what you don’t measure.
Dearth of surgical data from LMICs

GlobalSurg foundations:

1) Connectivity
GlobalSurg foundations:

2) The approach of collaboration
Collaborators and geographical reach

>5000 registered collaborators
>100 countries
3 Global cohort studies
8 Peer-reviewed papers
GlobalSurg 1: Outcome of emergency abdominal surgery in high, middle and low income countries

Countries: 58 | Hospitals: 357 | Collaborators: 1532 | Patients: 10745

24 h mortality higher in LMICs

- High: 1.1%
- Mid: 1.9%
- Low: 3.1%

Adjusted odds ratio (95% CI): 1.00 (1.40, 3.98)

30 d mortality higher in LMICs

- High: 4.5%
- Mid: 6.0%
- Low: 8.7%

Adjusted odds ratio (95% CI): 1.00 (1.84, 4.20)

Checklist use associated with lower 30 d mortality

- High: 91.4%
- Mid: 55.9%
- Low: 32.1%

(Proportion of patients in whom checklist used)

Association of checklist with 30d mortality

- Adjusted odds ratio (95% CI): 0.62 (0.42, 0.92)

GlobalSurg Collaborative, BJS 2016;103: 971–988 | globalsurg.org | @globalsurg
Wound infection after gastrointestinal surgery worldwide

Countries: 66 | Hospitals: 343 | Collaborators: 1815 | Patients: 12 539

<table>
<thead>
<tr>
<th>Population</th>
<th>Wound infection more common in low-income countries</th>
<th>Drug-resistant bugs may be more common in low-income countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries grouped by human development index</td>
<td><img src="image" alt="Graph" /></td>
<td><img src="image" alt="Drug-resistant bugs" /></td>
</tr>
<tr>
<td>HIGH</td>
<td>MID</td>
<td>LOW</td>
</tr>
<tr>
<td>7339 patients</td>
<td>3918 patients</td>
<td>1282 patients</td>
</tr>
<tr>
<td>59%</td>
<td>31%</td>
<td>10%</td>
</tr>
<tr>
<td>193 hospitals</td>
<td>82 hospitals</td>
<td>68 hospitals</td>
</tr>
<tr>
<td>30 countries</td>
<td>18 countries</td>
<td>18 countries</td>
</tr>
<tr>
<td>HIGH</td>
<td>MID</td>
<td>LOW</td>
</tr>
<tr>
<td>9% of patients</td>
<td>14% of patients</td>
<td>23% of patients</td>
</tr>
<tr>
<td>HIGH</td>
<td>MID</td>
<td>LOW</td>
</tr>
<tr>
<td>17% of patients with an infection and a result</td>
<td>20%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Explore the data with our interactive visualisation: ssi globalsurg.org globalsurg.org @GlobalSurg
Surgical site infection after gastrointestinal surgery in high-income, middle-income, and low-income countries: a prospective, international, multicentre cohort study

Overview of attention for article published in Lancet Infectious Diseases, February 2018

This research output has an Altmetric Attention Score of 668. This is our high-level measure of the quality and quantity of online attention that it has received. This Attention Score, as well as the ranking and number of research outputs shown below, was calculated when the research output was last mentioned on 01 March 2018.

All research outputs

668

#5,460 of 9,130,910 outputs

Outputs from Lancet Infectious Diseases

#11

of 2,959 outputs

Outputs of similar age

#238

of 1,626,442 outputs

Outputs of similar age from Lancet Infectious Diseases

#1

of 79 outputs

Altmetric has tracked 9,130,910 research outputs across all sources so far. Compared to these this one has done particularly well and is in the 99th percentile. It's in the top 5% of all research outputs ever tracked by Altmetric.

The data shown above were collected from the profiles of 589 tweeters who shared this research output. Click here to find out more about how the information was collected.
GlobalSurg-3

Quality and outcomes after global cancer surgery: a prospective, international cohort study

- **95** Countries
- **596** Hospitals
- **2913** Surgeons and researchers
- **11464** Patients
- **7237** Patients’ data completed
- **02-Nov 2018** Numbers updated
NIHR grant and onward plans
The power of collaboration

"It is amazing what you can accomplish if you do not care who gets the credit.“ – Harry S Truman

www.globalsurg.org