GLOBALSURG3 | GlobalSurg | NIHR Global Health Research Unit on Global Surgery
PROSPECTIVE INTERNATIONAL COHORT STUDY

GlobalSurg 3 National Leads online Meeting Minutes July 23rd 2019

GlobalSurg 3 Patient data:

See flow chart available on the GlobalSurg data centre:
http://data.globalsurg.org/numbers/

Congratulations to everyone who has contributed to the amazing data set which is much stronger than either GlobalSurg 1 or 2.

The early results are really exciting and promise to produce mulitple strong publications; more than either of our previous studies.

Provision final numbers:
Patients 15,973
Countries: 82
Hospitals: 429
Teams: 837

Patient numbers by cancer type –
Breast: 8,258
Colorectal: 6,046
Gastric: 1,291

A set of slides showing early results can be distributed amongst the national leads in order to facilitate a wider discussion of the data – **these should be treated as confidential so as to preserve the impact of the results on publication**.

GlobalSurg 3 Data Quality – the GlobalSurg team have been spending a lot of time going through the data quality processes that have been established for GlobalSurg 3.
We've been monitoring data quality as data entry has been on-going and we have been in touch with teams to improve their dataset where necessary.
The protocol states that teams that have has less than 90% data completion will be removed – for example 9 out 10 complete patients (90%) is ok; but 8 out 10 complete patients (80% complete) is not acceptable.
The vast majority of teams have been able to complete their datasets and will be included, but there are now some teams that are not engaging at all and have now be removed.

Those teams have received multiple emails and have been given the opportunity to complete their data over a period of months – there is no further opportunity to complete missing data.

Fortunately, most teams have passed this very stringent data quality check and thanks to everyone's great efforts, very few have been removed.

GlobalSurg 3 Hospital Level Survey

The hospital level survey has progressed really well, better than previous attempts to capture hospital level data across the GlobalSurg network. The survey is capturing cancer care provision across the network
To date, 195 hospitals have completed the survey

There are 85 remaining with a deadline of 5th August. National Leads are requested to assist GS3 hospitals within their countries to complete the survey. After the call National Leads will be emailed a list of hospitals within their country still to complete the survey.

We are also collecting photographs of the hospital entrance, the operating theatre and anaesthetic machine. This is for a collaboration called 'SurgStreet' with the GapMinder foundation as part of their 'Dollar street' initiative. The photographs will be used to generate a visual matrix of hospitals and their facilities from low, to middle, to high income countries in order visually demonstrates inequities in surgical care across the GlobalSurg network.

ORCID ID

Quick reminder that we require the ORCID ID for all national leads for the purposes of generating the authorship list. We will contact individually any national leads who have yet to submit their ORCID ID.

Questions and discussion arising during the meeting:

Q – is the stage of presentation data ready yet?
A – the clinical stage (TNM and Essential TNM) is very complete and shows (as might be expected) a later stage of presentation in LMIC for colorectal, breast and gastric cancer. Taking into account patient factors and disease factors, for example stage and urgency, whether the disease was detected by screening or symptoms, taking into account all of these factors there is still a difference in outcome in LMIC patients. This begins to address the question about how much of the difference in outcome can be attributed to the late presentation of the disease and how much could be addressed by for example, better infrastructure, patient safety approaches (WHO checklist) and addressing failure to rescue.

Q – what Is the hypothesis for these differences? How can this be tested in the primary dataset – what is the reason for the difference in outcome, rather than what isn't the reason.
A – What is captured is the excess mortality remaining after the patient/disease factors that can be account for have been. Remember, these are preliminary observations of the dataset so far. The excess mortality covers everything from the patients factors that haven't been accounted for, all the way through to differences in operative approach, differences in patient care, etc.
The important point is to ensure this is presented as a system-wide, rather than individual, issue and that it can be improved by appropriate interventions. The GlobalSurg 3 dataset is revealing in much greater detail the causes of mortality.

Q – is the next step to perform a trial of a 'failure to rescue' intervention to randomise patients or hospitals to test this?
A – possibly ; it will be important to identify the specific perioperative intervention that could reduce the complication rate that has been observed within the GlobaSurg 3 dataset.

Q – Does the GlobalSurg 3 dataset give any indication of the numbers of patients that never present to hospital at all?
A – there was a very clear decision to make the denominator of the GlobalSurg 3 dataset patients that were operated on, rather than more broadly including all patients with cancer as we weren't confident we would be able to capture these patients accurately. Therefore, within the GS3 dataset there is no information about the epidemiological incidence or prevalence of colorectal, breast or gastric cancer.
However, The Global Burden of Disease dataset does include incidence and prevalence rates for all the GS3 cancer types and it would be interesting to compare these figures with the number of operated on patients in the GS3 dataset – which may reveal significant under reporting of cancer rates as captured by the Global Burden of disease dataset
There are some access metrics in the dataset such as distance travelled to hospital for surgery – so there are other interesting variables that may begin to explain some of the differences observed.

Q – are there any plans for what other papers may come out of the dataset?
A – the first paper will be aiming as high as possible and will encompass all of the data (breast, colon, gastric cancer) and will report on the quality of cancer surgery worldwide. Other papers may include cancer-specific analyses, access to surgery, nutrition, staging and quality of staging. The essential TNM we were using hasn't been used in such a big dataset before and the TNM8 collaborators are interesting in forming a group to examine this data specifically.
Q – is it possible to extend the study to collect disease-free survival and patient reported outcomes
A – we do have an ambition to collect longer term follow-up, including disease-free and overall survival rates. This has been written into the protocol but has not yet been taken forward, but if this available in some selected countries, it would be fantastic to collect this.

Q – is it possible to list the hospitals that are and are not included in the study?
A – it would be really great to generate a map of hospitals that have taken part and identify those that have been unable to take part,
There really is a lot of data that can be used to answer a lot of different questions.

Q – Can national leads help chase defaulting teams?
A – the database must now be locked to allow the analysis to be completed so there is no further opportunity to amend or add missing data.

Q – How is best way for national leads to keep track of completion of all the different elements of the project?
A – We have tried to separate primary data collection, validation and HLS to keep it as straight forward as possible. But there is overlap between the many elements!
For primary data collection and completion the best place to look is the National Leads app with provides a lot of information that can be filtered by country and hospital.
Validation and HLS completion are not yet visible in the app due to time constraints. It is not possible to compile all the information country by country and email all national leads separately due to the volume of data – given the databases are now locked we don't feel this would be worthwhile as there is no further opportunity to complete anything, however, we are happy to check specific questions on a one-to-one basis.

Q – if the National Leads app says 'validator needed' what does this mean? Does it mean the hospital dataset is too small to validate?
A – usually that means we did not receive a completed validator registration from an individual wishing to act as validator for that hospital.
There was no decision to exclude any hospitals from the validation process on the basis of the size of the dataset, or for any other reason. The only limiting factor was the registration of validators.

Q – what are the next steps for the project and when we will start writing the manuscript? When and where will the paper be published?
A - We are completing the final data cleaning and final dataset should be ready to begin formal analysis within the next few weeks. We are aiming for a draft ready for submission by end of November 2019. That gives a 3 month period for completing the full analysis and writing the paper.
When and where it gets published depends on the peer review process and the length of time that takes.