These are the last action points for hospital leads and data collection teams to ensure data is uploaded fully and correctly and to make sure all members of the team will be recognised as authors at publication. Please follow the links to the more detailed instructions.

- **Complete the Centre Survey** on Redcap. The survey is a key part of data collection that will allow us to make the study results as detailed and accurate as possible. We will measure hospital factors that could be associated with longer waiting times. Please find the form under the Team Registration & Authorship confirmation project.

- **Complete the Authorship Confirmation form** on Redcap. You can find it under the Team Registration & Authorship confirmation project. Please ensure that everyone that collected data is included and the correct ORCID numbers are listed and then confirm at the end of the form if all the data is accurate. The deadline for any changes to authorship is 28th July.

- **Check your name spelling on the ORCID website** and encourage your data collection teams to do so as well. Names, as listed in ORCID, will be used to form the authors list in future publications.

- **Resolve missing data and data inconsistencies** at your centre, as highlighted in the relevant REDCap reports. Please find the reports under the Data Collection project. Instructions on how to remove patient records are available in this document.
Authorship confirmation and hospital level survey [back to action points]

When you access HIPPO-Team Registration, you will see that there are 2 new forms:

**NEW Record ID 30**

When you access HIPPO-Team Registration, you will see that there are 2 new forms:

<table>
<thead>
<tr>
<th>Data Collection Instrument</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini-team application portal</td>
<td></td>
</tr>
<tr>
<td>Authorship confirmation</td>
<td></td>
</tr>
<tr>
<td>Centre Survey</td>
<td></td>
</tr>
</tbody>
</table>

Please check the **authorship confirmation** to confirm the details from you and collaborators from your team are correct. Names will be pulled from ORCID as explained. **You can do any changes to this form as needed until 28th July 2023.**

Once you confirm the details, please select ‘Yes’ in the last question and mark it as ‘Complete’:

**AUTHORSHIP CONFIRMATION**

**AUTHORSHIP RECOGNITION**

Everyone that participated in the study needs to be listed in this form, with a valid ORCID, to be recognised in the authorship. The details present here were extracted from team registration.

Please ensure that everyone that participated in the study is listed here. **If someone is not listed here and should be** recognised as part of the authorship, please add their details as collaborators (ORCID and email).

You can check how the name of your collaborators will show up by searching their ORCID in the website (https://orcid.org).

**You can edit this form until 28th July 23:00 GMT if anything needs to be corrected. No changes will be possible after that and authorship will be based on this form.**

Do you confirm that everyone that participated in the study that should be recognised in the authorship from your hospital is included in this form?  

- [ ] Yes
- [x] No

**Form Status**

Complete?  

- [ ] Incomplete
To understand better the context where data is being collected and test if there is an association of some hospital level factors with longer waiting times, we developed the hospital level survey. Please read all information below:

**Hospital level survey**

This survey will have two separate parts, please ensure to read the instructions through. Part A will focus on hospital level factors that can be associated with longer waiting times. Part B will assess the system preparedness index at your hospital and is optional, but we would be very grateful if you could fill it. This index is validated and will measure the resilience of your elective surgical system. You are only eligible to fill these surveys if you entered data for HIPPO study.

**Instructions PART A**

1. Please complete all fields in this centre survey. Completion of the part A should take around 5 minutes.
2. If your hospital did not collect data for HIPPO study (patient data), we will not be able to use hospital-level data only, so you will not be recognised in the authorship.
3. Please complete the survey for the hospital where you collected HIPPO data.
4. Please complete data according to the current situation at your hospital.
5. If needed, you can save your progress on the survey and return to it later at any time up until the deadline (2300 GMT, 28 JULY 2023).
6. If you are not a consultant / attending / equivalent, you should confirm the responses to this survey with a consultant / attending / equivalent at your hospital.

**The deadline for completing the centre survey is 2300 GMT, 28 JULY 2023.**

**Part B - Surgery Preparedness Index reassessment 2023**

**Instructions PART B**

1. This is optional but we would be greatful if you could fill it. The SPI will measure elective surgery resilience at your hospital. Completion of the part B should take around 15 minutes.
2. You will be recognised as a PubMed citable co-author in the papers that use the data collected in this part of the survey (part B).
3. If your hospital did not collect data for HIPPO study (patient data), we will not be able to use hospital-level data only, so you will not be recognised in the authorship.
4. Please complete the survey for the hospital where you collected HIPPO data.
5. Please complete data according to the current situation at your hospital.
6. If needed, you can save your progress on the survey and return to it later at any time up until the deadline (2300 GMT, 28 JULY 2023).
7. If you are not a consultant / attending / equivalent, you should confirm the responses to this survey with a consultant / attending / equivalent at your hospital.

**The deadline for completing the centre survey is 2300 GMT, 28 JULY 2023.**

You will only be able to fill any of the hospital surveys if you entered patient data on HIPPO study.
CHECK THE DATA FROM YOUR CENTRE [back to action points]

To ensure high data quality, it is important to have consistent data and the lowest rate of missing data possible. This is a summary of what we are checking and what you can check too please:

- **Missing data**: ensure that you have filled everything in the forms
- **Follow-up data**: ensure this is only entered after the completion of 30 days after surgery
- **Data consistency**:
  - Date of surgery needs to be in the range of data collection (30th January – 21st May 2023).
  - Date of diagnosis, date of decision to surgery and date of surgery need to be in order or in the same day.
  - Patients with symptoms CANNOT have asymptomatic as an indication for surgery.
  - Patients without symptoms CANNOT have symptomatic as an indication for surgery.
  - Patients where the indication for surgery is obstruction, incarceration or strangulation of the hernia, are expected to be operated as EMERGENCY cases.
  - Patients where the indication for surgery is Asymptomatic are expected to be operated as ELECTIVE.

The following images explains each one of the above and we are sending emails to each centre where typos might have occurred.
MISSING DATA [back to action points]

Please 

login in your account and go to the HIPPO Data collection project:

HIPPO Data Collection

Access the report ‘Missing data – all periods’ to check if you have any missing data and you should see something similar to the picture below:


If you HAVE records here, it means that you have missing data. Each column shows how many variables are missing in each form (pre-op, intra-op and post-op).

Please click on each record ID and fill the variables that are missing.

Eg: the record 45886-1 has missing data in the postoperative form only, so this is what needs to be corrected.

Only fields where is impossible to have data to fill them should be left unfilled. Patients with key missing data will be excluded from the analysis planned, which might imply exclusion of centres if the above is true for >95% of the included patients.

If you do NOT HAVE records here, no action is needed.
DATA CONSISTENCY: DATES AND TIMES


There are three key dates within the HIPPO study dataset, that can be found within the Pre-Operative Data Fields section:

Ordering of Dates

It was intended that for these three variables:

1) **Date of diagnosis** is the first time that a suspected or confirmed diagnosis of inguinal hernia was made
2) A suspected or confirmed diagnosis of inguinal hernia was required before making a decision regarding surgery
3) A decision to operate was taken before surgery

Therefore:

1) **Date of diagnosis** should NOT occur AFTER **Date of Surgery**
2) **Date of diagnosis** should NOT occur AFTER **Date of decision for surgery**
3) **Date of decision for surgery** should NOT occur AFTER **Date of surgery**

This therefore gives an ideal timeline of:

1) **Date of diagnosis** -> **Date of decision for surgery** -> **Date of surgery**

With alternative acceptable timelines:

2) **Date of diagnosis** = **Date of decision for surgery** -> **Date of surgery**
3) **Date of diagnosis** = **Date of decision for surgery** = **Date of surgery**

We will therefore be checking that all dates within the HIPPO dataset conform to one of these three timelines and identifying where this is not the case.
If the dates were initially entered in a format outside of this timeline, the below warning was shown.

N.B. Initial review of dates entered suggests that most flagged dates entered are due to error in year input (2023 used in place of 2022, vice versa, etc.), which may be easily corrected by updating the record to reflect the correct year.

Other Date related errors that will be flagged up for review
Dates will additionally be flagged for correction if Date of surgery entered is outside of the study period dates of the study. Please therefore check that Date of surgery is between:

Period 1 – January 30th 2023 to February 26th 2023
Period 2 – February 27th 2023 to March 26th 2023
Period 3 – March 27th 2023 to April 23rd 2023
Period 4 – April 24th 2023 to May 21st 2023
DATA CONSISTENCY: SYMPTOMS AND INDICATION

REPORT:

In the pre-operative data form, we asked whether patient had experienced symptoms related to their inguinal hernia before surgery and your answer was YES, which means that the patient had symptoms.

In the Operative Management section, we asked about the Indication for Surgery and your answer was ASYMPTOMATIC (see below).

These do not match with each other, because if the patient had symptoms before surgery, the indication for surgery should indicate that.
Please review the data provided at this stage, in order to make our analysis and the overall results more accurate. Patients with inconsistent data will be excluded from the analysis planned, which might imply exclusion of centres if the above is true for for >95% of the included patients.
DATA CONSISTENCY: NO SYMPTOMS AND INDICATION

REPORT:

In the pre-operative data form, we asked whether patient had experienced symptoms related to their inguinal hernia before surgery and your answer was NO, which means that the patient DID NOT have symptoms.

In the Operative Management section, we asked about the Indication for Surgery and your answer was either SYMPTOMATIC/ INCARCELATED/ OBSTRUCTIVE/ STRANGLULATED (see below).

For any of these indications, it is likely that the patient HAS EXPERIENCED SYMPTOMS pre-operatively, even if for only a few hours before the operation. Please review the data provided at this stage, in order to make our analysis and the overall results more accurate. Patients with inconsistent data will be excluded from the analysis planned, which might imply exclusion of centres if the above is true for >95% of the included patients.
DATA CONSISTENCY: INDICATION AND URGENCY [back to action points]

REPORT: https://globalsurgery.redcap.bham.ac.uk/redcap_v13.4.9/DataExport/index.php?pid=207&report_id=1039

In the Operative Management section, we asked about the Indication for Surgery and your answer was either INCARCERATED/ OBSTRUCTIVE/ STRANGULATED (see below). Then, we asked about the Urgency of surgery and your answer was either ELECTIVE (see below).

For the indications INCARCERATED/OBSTRUCTION/STRANGULATED, it is likely that the urgency of surgery should HAVE BEEN EMERGENCY, due to the life-threatening risk associated with such conditions.

Please review the data provided at this stage, in order to make our analysis and the overall results more accurate. Patients with inconsistent data will be excluded from the analysis planned, which might imply exclusion of centres if the above is true for more than 95% patients.
How to “delete” patients from the database

You can “delete” patients in the Data Collection project.