



# STS National Database™

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Society of Thoracic Surgeons

General Thoracic Surgery Database  
User Group Call

October 18, 2021



# GTSD User Group Call

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- Welcome and Introductions
- STS Announcement
- Mortality % Missingness Thresholds
- Preparing For Harvest Close
- IQVIA Update
- User Feedback
  - Include Ticket Number/Case Number





# General Thoracic Harvest Announcement



**Important  
Notice**

- Fall 2021 Harvest Closes This Week
  - File submission deadline is **Friday, October 22 @ 11:59pm ET**
    - Surgery dates up through 6/30/2021
- Opt Out by **Tuesday, October 26<sup>th</sup>**
  - Opt Out form on STS Website:  
<https://www.sts.org/form/harvest-opt-out-form>

# Post AQO Update

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- Beginning with the Fall 2021 Analysis – New methodology will be implemented to calculate the Mortality % Missingness threshold

**YOUR  
FEEDBACK  
MATTERS!**

# Major – Analyzed Procedures

- Major/Analyzed (**Required**)
  - Confirmed Lung Cancer Resections
  - Confirmed Esophageal Cancer Resections
  - Benchmark Data Provided
  - **Risk Adjusted**
- Major/Analyzed (**Not Required**)
  - Optional Procedures
    - Thymus/Mediastinal Mass/Myasthenia Gravis
    - Tracheal Resection
    - Hiatal Hernia/GERD
  - Benchmark Data Provided
  - **Not Risk Adjusted**

| Major/Analyzed Procedures<br>(must complete required fields that are <u>underlined&gt; and in blue)</u>   |   |  |
|---|---|--|
| Lung Cancer Resection (Required)<br>Weight = 60   |   |  |
| Analyzed Cases  | <input type="checkbox"/> Thoracoscopy, surgical; with lobectomy (32663) **  | <input type="checkbox"/> Removal of lung, two lobes (bilobectomy) (32482) **   |
|   | <input type="checkbox"/> Thoracoscopy with therapeutic wedge resection (eg mass or nodule) initial, unilateral (32666) **   | <input type="checkbox"/> Removal of lung, single segment (segmentectomy) (32484) **  |
|   | <input type="checkbox"/> Thoracoscopy with removal of a single lung segment (segmentectomy) (32669) **  | <input type="checkbox"/> Removal of lung, sleeve lobectomy (32486) **  |
|   | <input type="checkbox"/> Thoracoscopy with removal of two lobes (bilobectomy) (32670) **  | <input type="checkbox"/> Removal of lung, completion pneumonectomy (32488) **  |
|   | <input type="checkbox"/> Thoracoscopy with removal of lung, pneumonectomy (32671) **  | <input type="checkbox"/> Resection and repair of portion of bronchus (bronchoplasty) when performed at time of lobectomy or segmentectomy (32501) **                     |
|   | <input type="checkbox"/> Thoracotomy with therapeutic wedge resection (eg mass nodule) initial (32505) **   | <input type="checkbox"/> Resection of apical lung tumor (e.g., Pancoast tumor), including chest wall resection, without chest wall reconstruction(s) (32503)             |
|   | <input type="checkbox"/> Removal of lung, total pneumonectomy; (32440) **   | <input type="checkbox"/> Resection of apical lung tumor (e.g., Pancoast tumor), including chest wall resection, with chest wall reconstruction (32504)                   |
|   | <input type="checkbox"/> Removal of lung, sleeve (carinal) pneumonectomy (32442) **   | <input type="checkbox"/> Resection of lung with resection of chest wall  |
|   | <input type="checkbox"/> Removal of lung, single lobe (lobectomy) (32480) **  |  |
| Concomitant Procedures<br>Weight = 20   | <input type="checkbox"/> Thoracoscopy with therapeutic wedge resection (eg mass or nodule) each additional resection, ipsilateral (32667) List separately in addition to primary procedure code | <input type="checkbox"/> Thoracotomy with diagnostic wedge resection followed by anatomic lung resection (+32507), List separately in addition to primary proc code      |
|   | <input type="checkbox"/> Thoracoscopy with mediastinal and regional lymphadenectomy (+32674) List separately in addition to primary procedure code  | <input type="checkbox"/> Thoracoscopy with diagnostic wedge resection followed by anatomic lung resection (32668), List separately in addition to primary procedure code |
|   | <input type="checkbox"/> Thoracotomy with therapeutic wedge resection (eg mass nodule) each additional resection, ipsilateral (+32506) List separately in addition to primary procedure code    |  |
| Esophagus Resection (Required)<br>Weight = 70   |   |  |
| <input type="checkbox"/> Transhiatal-Total esophagectomy, without thoracotomy, with cervical esophagogastrotomy (43107) **                              | <input type="checkbox"/> Partial esophagectomy, distal two-thirds, with thoracotomy only (43121) **   |  |
| <input type="checkbox"/> Total esophagectomy without thoracotomy; with colon interposition or small intestine reconstruction (43108) **                 | <input type="checkbox"/> Thoracoabdominal-Partial esophagectomy, thoracoabdominal approach (43122) **   |  |
| <input type="checkbox"/> Three Incision -Total esophagectomy with thoracotomy; with cervical esophagogastrotomy (43112) **                              | <input type="checkbox"/> Partial esophagectomy, thoracoabdominal with colon interposition or small intestine (43123) **   |  |
| <input type="checkbox"/> Total esophagectomy with thoracotomy; with colon interposition or small intestine reconstruction (43113) **                    | <input type="checkbox"/> Total or partial esophagectomy, without reconstruction with cervical esophagogastrotomy (43124)  |  |
| <input type="checkbox"/> Partial esophagectomy, cervical, with free intestinal graft, including microvascular anastomosis (43116)                       | <input type="checkbox"/> Minimally invasive three incision esophagectomy (McKeown) (43288)  |  |
| <input type="checkbox"/> Ivor Lewis-Partial esophagectomy, distal two-thirds, with thoracotomy and separate abdominal incision (43117) **               | <input type="checkbox"/> Minimally invasive esophagectomy, Ivor Lewis approach (43287) **   |  |
| <input type="checkbox"/> Partial esophagectomy, with thoracotomy and separate abdominal incision with colon interposition or small intestine (43118) ** | <input type="checkbox"/> Minimally invasive esophagectomy, Abdominal and neck approach (43286) **   |  |
| Hiatal Hernia / GERD Procedures (Optional)<br>Weight = 30   |   |  |
| <input type="checkbox"/> Laparoscopy, surgical, esophagogastric fundoplasty (e.g., Nissen, Toupet procedures) (43280)                                   | <input type="checkbox"/> Repair, paraesophageal hiatal hernia via laparotomy with mesh (43333)  |  |
| <input type="checkbox"/> Laparoscopy, surgical with repair of paraesophageal hernia (fundoplasty) without mesh (43281)                                  | <input type="checkbox"/> Repair, paraesophageal hiatal hernia via thoracotomy without mesh (43334)  |  |
| <input type="checkbox"/> Laparoscopy, surgical with repair of paraesophageal hernia (fundoplasty) with mesh (43282)                                     | <input type="checkbox"/> Repair, paraesophageal hiatal hernia via thoracotomy with mesh (43335)   |  |
| <input type="checkbox"/> Nissen fundoplasty- laparotomy (includes partial fundoplication/wrap) (43327)  | <input type="checkbox"/> Repair, paraesophageal hiatal hernia via thoracoabdominal approach without mesh (43336)  |  |
| <input type="checkbox"/> Transthoracic Fundoplication- open thoracotomy (includes Belsey/Nissen) (43328)  | <input type="checkbox"/> Repair, paraesophageal hiatal hernia via thoracoabdominal approach with mesh (43337)   |  |
| <input type="checkbox"/> Repair, paraesophageal hiatal hernia via laparotomy without mesh (43332)   | <input type="checkbox"/> LINX Procedure (43284 )  |  |
| Tracheal Resection (Optional)<br>Weight = 40  |   |  |

# Minor/Non-Analyzed Procedures

- Minor /Non-Analyzed Procedures
  - Accepted into the database
    - **ONLY if you choose to collect and submit**
  - Required fields “On Save” checks will be applied to these records
  - **Not risk adjusted/no benchmark data provided**
- Concomitant Procedures
  - If a procedure considered ‘minor’ or ‘optional’ is done at the same time as an ‘analyzed’ procedure, then it **should be included on the same data collection form.**

| Minor/Non-Analyzed Procedures (Concomitant Procedures)<br>Weight = 10   |  |
|---|--|
| <b>Trachea, Bronchi, Larynx</b>   |  |
| <input type="checkbox"/> Laryngectomy, partial (31370)  | <input type="checkbox"/> Tracheostomy replacement (tube change) prior to est. of fistula tract (31502)   |
| <input type="checkbox"/> Tracheal wound or injury suture repair; cervical (31800)   | <input type="checkbox"/> Tracheostomy, planned (31600)   |
| <input type="checkbox"/> Tracheal wound or injury suture repair; intrathoracic (31805)  | <input type="checkbox"/> Tracheostomy revision simple, without flap (31613)  |
| <input type="checkbox"/> Unlisted procedure, trachea, bronchi (31899)   | <input type="checkbox"/> Tracheostomy revision complex, with flap (31614)  |
| <input type="checkbox"/> Bronchopleural fistula closure (32906)   | <input type="checkbox"/> Tracheoplasty; cervical (31750)   |
| <input type="checkbox"/> Bronchogenic cyst removal  | <input type="checkbox"/> Tracheoplasty; intrathoracic (31760)  |
| <input type="checkbox"/> Bronchial laceration suture  | <input type="checkbox"/> Bronchial sleeve resection  |
| <input type="checkbox"/> Bronchoplasty, graft repair (31770)  | <input type="checkbox"/> Tracheostomy mediastinal  |
| <input type="checkbox"/> Bronchoplasty; excision stenosis and anastomosis (31775)   | <input type="checkbox"/> Rigid stent removal   |
| <b>Bronchoscopy</b>   |  |
| <input type="checkbox"/> Tracheobronchoscopy through established tracheostomy incision (31615)  | <input type="checkbox"/> Bronchoscopy, with transbronchial lung biopsy(s), each additional lobe (31632)  |
| <input type="checkbox"/> Endobronchial ultrasound (EBUS) during bronchoscopy diagnostic or therapeutic intervention(s) (31620)        | <input type="checkbox"/> Bronchoscopy, with transbronchial needle aspiration biopsy(s), each additional lobe (31633)                                     |
| <input type="checkbox"/> Bronchoscopy, diagnostic, with or without cell washing (31622)   | <input type="checkbox"/> Bronchoscopy, with removal of foreign body (31635)  |
| <input type="checkbox"/> Bronchoscopy, with brushing or protected brushings (31623)   | <input type="checkbox"/> Bronchoscopy, with placement of bronchial stent(s) (includes tracheal/bronchial dilation as required), initial bronchus (31636) |
| <input type="checkbox"/> Bronchoscopy, with bronchial alveolar lavage (BAL) (31624)   | <input type="checkbox"/> Bronchoscopy, each additional major bronchus stented (31637)  |
| <input type="checkbox"/> Bronchoscopy, with bronchial or endobronchial biopsy(s), single or multiple sites (31625)                    | <input type="checkbox"/> Bronchoscopy, with revision of tracheal or bronchial stent inserted at previous session (31638)                                 |
| <input type="checkbox"/> Bronchoscopy, with placement of Fiducial markers (31626)   | <input type="checkbox"/> Bronchoscopy, with excision of tumor (31640)  |
| <input type="checkbox"/> Bronchoscopy, navigational (31627)   | <input type="checkbox"/> Bronchoscopy, with destruction of tumor or relief of stenosis by any method other than excision (e.g., laser therapy) (31641)   |
| <input type="checkbox"/> Bronchoscopy, with transbronchial lung biopsy(s), single lobe (31628)  | <input type="checkbox"/> Bronchoscopy, with placement of catheter(s) for intracavitary radioelement application (31643)                                  |
| <input type="checkbox"/> Bronchoscopy, with transbronchial needle aspiration biopsy(s) (31629)  | <input type="checkbox"/> Bronchoscopy, with therapeutic aspiration of tracheobronchial tree, initial (drainage of lung abscess) (31645)                  |
| <input type="checkbox"/> Bronchoscopy, with tracheal/bronchial dilation or closed reduction of fracture (31630)                       | <input type="checkbox"/> Bronchoscopy, with therapeutic aspiration of tracheobronchial tree, subsequent (31646)  |
| <input type="checkbox"/> Bronchoscopy, with placement of tracheal stent(s) (includes tracheal/bronchial dilation as required) (31631) |  |
| <b>Pleural Space and Lung</b>   |  |
| <input type="checkbox"/> Thoracostomy; with rib resection for empyema (32035)   | <input type="checkbox"/> Insertion indwelling tunneled pleural catheter (32550)  |
| <input type="checkbox"/> Thoracostomy; with open flap drainage for empyema (32036)  | <input type="checkbox"/> Thoracoscopy, diagnostic lungs and pleural space, without biopsy (32601)  |
| <input type="checkbox"/> Thoracotomy with biopsy(s) lung infiltrate(s) (e.g. wedge), unilateral (32096)                               | <input type="checkbox"/> Thoracoscopy, diagnostic; with biopsy(s) of lung infiltrate(s) (e.g. wedge), unilateral (32607)                                 |
| <input type="checkbox"/> Thoracotomy with biopsy(s) lung nodule(s) or masses (e.g. incisional), unilateral (32097)                    | <input type="checkbox"/> Thoracoscopy, diagnostic; with biopsy(s) of lung nodule(s) or mass(es) (eg incisional), unilateral (32608)                      |
| <input type="checkbox"/> Thoracotomy with biopsy(s) of pleura (32098)   | <input type="checkbox"/> Thoracoscopy, diagnostic; with biopsy(s) of pleura (32609)  |
| <input type="checkbox"/> Thoracotomy, with exploration (32100)  | <input type="checkbox"/> Thoracoscopy, surgical; with pleurodesis (e.g., mechanical or chemical) (32650)   |
| <input type="checkbox"/> Thoracotomy, major; with control of traumatic hemorrhage and/or repair of lung tear (32110)                  | <input type="checkbox"/> Thoracoscopy, surgical; with partial pulmonary decortication (32651)  |
| <input type="checkbox"/> Thoracotomy, major; for postoperative complications (32120)  | <input type="checkbox"/> Thoracoscopy, surgical; with total pulmonary decortication (32652)  |



# The 'OLD' Methodology - How is the % Missingness Threshold Calculated?

## Missing Data

Missing data thresholds are calculated based upon the total population eligible for reporting (all records submitted by a Participant) and are **NOT computed based upon separate composite populations.**

If one or more of the Operative Mortality fields (*MtDCStat*, *Mt30Stat*) is missing or coded as "unknown", a record is considered as incomplete and will be excluded from the mortality analysis. Participants who do not meet the Operative Mortality related data completeness thresholds are not eligible to receive a composite score/risk adjusted analysis/star rating.

Mortality status at discharge is obtained from the variable *MtDCStat*. Operative Mortality is defined as in hospital death or death within 30 days of surgery and is obtained from the variables *MtDCStat* and *Mt30Stat*.

**Participants must meet the percent missing threshold for each calendar year whether full or partial based on the harvest reporting period start and end dates.**

- Surgery year 2017 (and greater) - Operation records where percent missing exceeds 2% for *MtDCStat* and *Mt30Stat*

**Fall reporting period missingness thresholds are calculated on the last and first 6 months of the calendar years. For example, the Fall 2020 reporting period includes OR dates of 7/1/2017 – 6/30/2020. If a Participant's missingness exceeds 2% for the last 6 months of 2017, they will not receive a composite rating/risk adjusted results. If a Participants missingness exceeds 2% for the first 6 months of 2020, they will not receive a composite rating/risk adjusted results.**



# The 'New' Methodology - How is the % Missingness Threshold Calculated?

## To be implemented with the Fall 2021 Analysis

- Mortality thresholds of 2% to be applied specifically to the composite population only.
  - The mortality threshold calculation will consider both the lung AND esophageal cancer resections combined.
- The mortality threshold calculation will **NOT** be applied to the 'Optional Major Procedures' or 'Minor Procedures'
  - Optional Major Procedures include: Hiatal Hernia/GERD Procedures, Tracheal Resections and Thymus/Mediastinal Mass Resections
- % Missingness will be calculated on a rolling three-year time period.
  - For example, the Fall 2021 Harvest (Reporting period of 7/1/2018 – 6/30-2021) % missingness thresholds would be applied as follows:
    - Year 1 – 7/1/2018 – 6/30/2019 (must have 2% or less missingness for this time period)  
**AND**
    - Year 2 – 7/1/2019 – 6/30/2020 (must have 2% or less missingness for this time period)  
**AND**
    - Year 3 – 7/1/2020 – 6/30/2021 (must have 2% or less missingness for this time period)





# The 'New' Methodology - How is the % Missingness Threshold Calculated?

## To be implemented with the Fall 2021 Analysis

If one or more of the Operative Mortality fields (*MtDCStat*, *Mt30Stat*) is missing or coded as "unknown", a record is considered as incomplete and will be excluded from the mortality analysis.

*Participants who do not meet the Operative Mortality related data completeness thresholds are not eligible to receive a composite score/risk adjusted analysis/star rating. Mortality status at discharge is obtained from the variable MtDCStat. Operative Mortality is defined as in hospital death or death within 30 days of surgery and is obtained from the variables **MtDCStat and Mt30Stat**.*



# Preparing Your Data for Analysis - From IQVIA to DCRI

Harvest Has Closed – Snapshot at IQVIA Performed

Participant Data File Prepared at  
IQVIA



Record Exclusions  
Implemented



Minor procedure ONLY records excluded from your  
data set



Records missing required fields  
flagged (exceptions (ECOG) applied as  
noted in TM)



Data file sent to DCRI for analysis



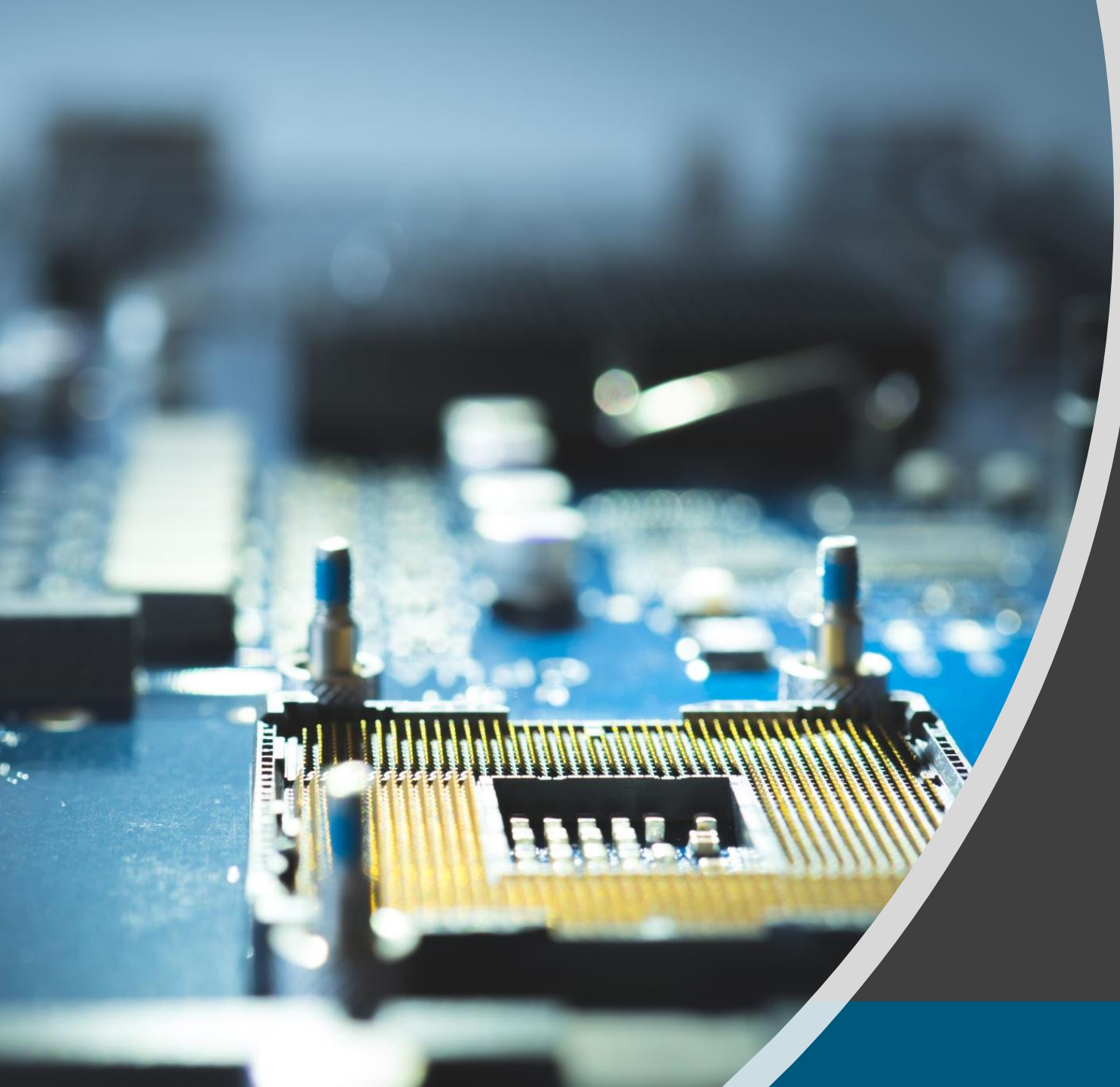
DCRI excludes any records missing  
one or more required fields



DCRI applies % Mortality  
Missingness Methodology



Final data set sent into  
analysis – composite criteria  
applied



# IQVIA Review

## Joe Brower



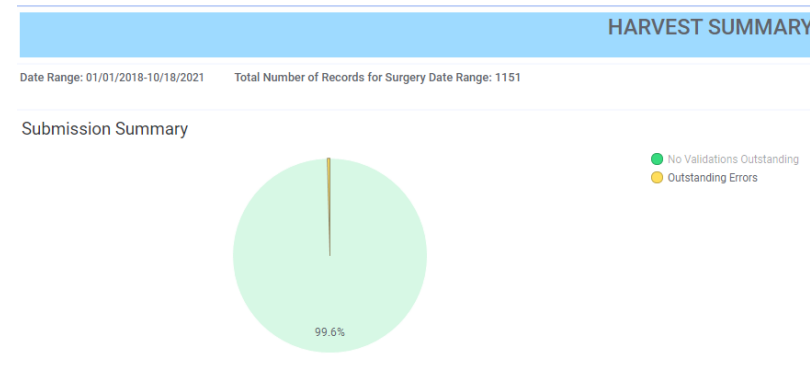
# October 2021 Release Update

## IQVIA Release Update – October 2021

STATUS: Released to Production **October 14<sup>th</sup>**

### Uploader & Direct Data Entry (DDE) Validations

- **STS-7400** – Removed an invalid validation from the Race - Multi-Select (racemulti) variable where it displayed when the expected responses were selected within the case form.
- **Uploader Users - Please contact the IQVIA support team for further assistance if you see the error appear on the Harvest Summary report in the instance where the values are entered on the case form.**
- **Direct Data Users – Please resave the caseform to resolve the error message if it appears on the Harvest Summary report.**



#### Record Level Validation

| Validation Status | Record ID | Short Name | MESSAGE  | Source Patient ID | Access Case                                 |
|-------------------|-----------|------------|--|-------------------|---|
| Error             | V311875   | racemulti  | Race - Multi-Select is required. Please enter a value. | V31254509         | <a href="https://sts.ir">https://sts.ir</a> |
| Error             | V311929   | racemulti  | Race - Multi-Select is required. Please enter a value. | V3116870          | <a href="https://sts.ir">https://sts.ir</a> |
| Error             | V312001   | racemulti  | Race - Multi-Select is required. Please enter a value. | V3116616          | <a href="https://sts.ir">https://sts.ir</a> |
| Error             | V312214   | racemulti  | Race - Multi-Select is required. Please enter a value. | V3198326          | <a href="https://sts.ir">https://sts.ir</a> |
| Error             | V312034   | racemulti  | Race - Multi-Select is required. Please enter a value. | V31338077         | <a href="https://sts.ir">https://sts.ir</a> |

# IQVIA Enhancements & Known Issues Oct. 2021

## IQVIA Enhancements and Known Issues

The items below are currently under review by the IQVIA development team and will be targeted for a future release.

### Release Timing: TBD

#### Direct Data Entry (DDE) Validations

- **STS-7157** – User request to reduce the severity level on identified require fields from critical errors to errors for direct data entry users

#### Participant Dashboard Report (non-analyzed)

- **STS-6995** – Participant Dashboard Report displays different percentages when exported to MS Excel (**RESOLVED** – Not an Issue)

#### Missing Variable Report – Report Logic to be updated

- **STS-7348** – Missing Variable Report – The MT30STAT variable will be updated to display the option of Unknown (harvest code = 3) as missing on the report.
- **STS-7050** - Missing Variable Report - The LFUDATE and LFUMORTSTAT is reported as missing when the record is associated with an earlier demographic data version (2.2, 2.081, 2.07, 2.06)
- **STS-7100** – Missing Variable Report – The report is flagging the Racemulti field as missing within the 5.21.1 data version when associated with an earlier demographic data version
- **STS-7278** – Missing Variable Report – Update the MVR report logic to include the missing check for the COVID19 variables (TempCode) and (TempDate)
- **STS-7302** – Missing Variable Report - Variable analysis - GERDPTALIVEYR Discrepancy between MVR and Participant Dashboard - denominator count difference identified

## Known Issues Posted to Library

**Please note: The full known issues and enhancements list is posted to the Library in the IQVIA platform for user review.**



# IQVIA Update

**Please note: Submitted tickets are currently under review and the IQVIA support team will follow up on resolution and/or target release confirmation.**

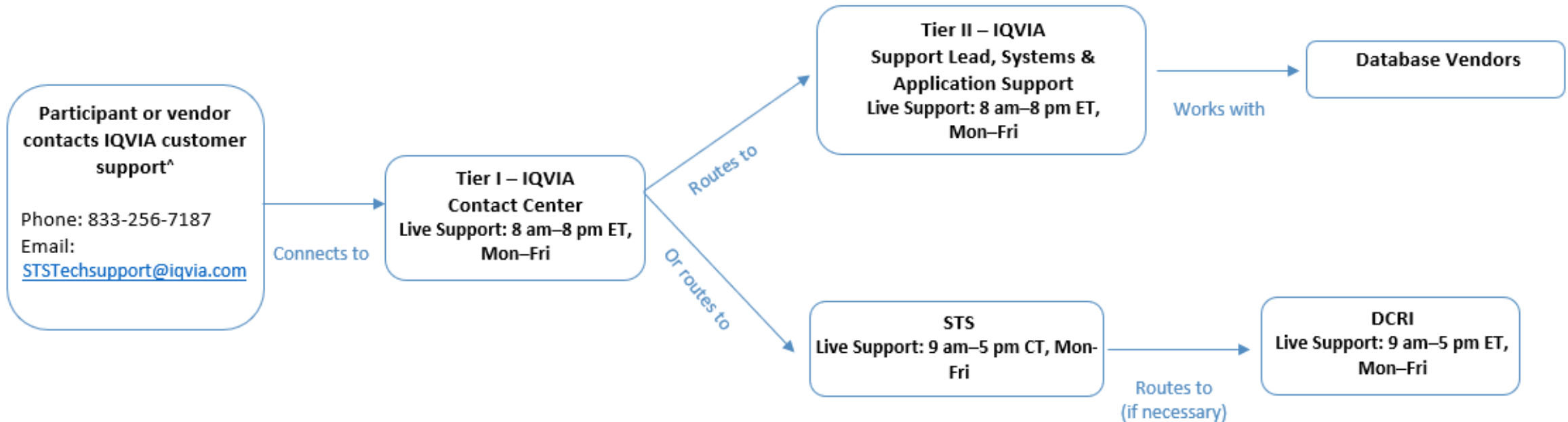
**The IQVIA Team is currently reviewing items to be targeted for an upcoming release. Those items will be posted to the Notifications section.**

# STS/IQVIA Support Plan



# IQVIA's Support Plan

**\*\*Please include your 5 digit Participant ID**



^ Inquiries received outside live support hours will require a 24-hour turnaround window (i.e., one business day) for responses.



# Resources

- [STS National Database Webpage](#)
- [STSTechSupport@IQVIA.com](mailto:STSTechSupport@IQVIA.com) (Uploader, DQR, Missing Variable, Dashboard, Password and Login )
- Phone Support: 1-833-256-7187
- [STS National Database Feedback Form](#)
- Resource Documents
  - Contact Information
  - Webinar Information
  - FAQ Document
  - Go-Live Checklist
  - Tiered-level Support Document
  - *Training Videos*
  - *Link to IQVIA*

WHERE

WHAT

WHEN

WHY

HOW

WHO

# Contact Information

**Leigh Ann Jones, STS  
National Database  
Manager, Congenital and  
General Thoracic**

- [Ljones@sts.org](mailto:Ljones@sts.org)
- **312-202-5822**

**Database Operational  
Questions**

- [STSDDB@sts.org](mailto:STSDDB@sts.org)

# Upcoming GTSD Webinars

## Monthly Webinar

- November 10 @ 2:30 CT

## User Group Call – Canceled

- November 24 @ 3:30CT

## Monthly Webinar

- December 8 @ 2:30CT



# Open Discussion



Please use the Q&A Function.



We will answer as many questions as possible.



We encourage your feedback and want to hear from you!