STS ACSD FAQ's
December 2020
Version 4.20.2

Seq	Update
Case Inclusion	**Update Dec 2020** – Cancelled or Aborted cases without any procedure performed are not entered into V 4.2.
492	**FAQ Dec 2020** - We would like clarification on the question of immunosuppression. Uncontrolled diabetes is classified as a secondary immunodeficiency. Since uncontrolled diabetes fits this classification should we code this condition (if explicitly documented in the patient record) as immunocompromised? **Answe**r – No, do not capture as immunosuppressed. There is a separate field SEQ 360 to capture Diabetes and that is where the Diabetes Risk Factor will be captured
492	**FAQ Dec 2020** – My patient takes sulfasalazine for Guillain Barre. Should we code "Yes" for Immunosuppression? **Answe**r – No, do not capture as immunosuppressed. Although sulfasalazine has immunomodulatory effects, it is not classified as an immunosuppressive medication.
550 /555	**FAQ Dec 2020** - I have encountered several carotid ultrasound reports that describe the percent stenosis as >70%. Should this be coded as moderate or severe? **Answer** - Consider this 71% and code as moderate.
885	**FAQ Dec 2020** - My patient has a history of a heart transplant. How do I capture if the patient had a previous MI pre- heart transplant? **Answer** – In this scenario, do not capture previous risk factors on prior heart.
1970	**Update Dec 2020** – Prior thymectomy performed through a median sternotomy who needs a CABG. If the pericardial space was previously entered, then this would be first re-op. Not all thymectomy procedures enter the pericardial space. Review the thymectomy op note or clarify with surgeon if the pericardial space had been entered previously or not.
2545	**Update Dec 2020** – Capture systemic clotting factors that were administered intra-operatively during the index surgical procedure.
2546	**Update Dec 2020** – Capture prothrombin complex concentrate (i.e.K-Centra) that were administered intra-operatively during the index surgical procedure.
2556	**Update Dec 2020** – Capture antifibrinolytic medications that were administered intra-operatively during the index surgical procedure.
2629	**Subclavian stenosis – Update Dec 2020** the presence of an untreated significant subclavian stenosis is considered a

	contraindication to pedicled IMA use. The IMA is a branch of the subclavian artery and a luminal stenosis in that vessel produces reduced flow through the IMA. The surgeon has the option of using the LIMA as a free (nonpedicled) graft, but due to the additional technical demands and reported lower patency rates for IMA free grafts, STS considers subclavian stenosis an acceptable exclusion to IMA use.
2629	**Previous cardiac or thoracic surgery – Update Dec 2020** a prior cardiac procedure may have involved harvesting of the IMA. Additionally, the greater technical complexity of reoperative surgery may mitigate against IMA use. Therefore, STS considers prior cardiac surgery to be an acceptable exclusion to IMA use. Prior thoracic surgery, if it is ipsilateral to the IMA being considered for use, is also an acceptable exclusion due to the development of pleural adhesions secondary to prior surgery.
2629	**Previous mediastinal radiation – Update Dec 2020** due to both the short and long term damaging effects of radiation on blood vessels, STS considers previous mediastinal radiation to be an acceptable reason for not using the IMA.
2629	**Emergent or salvage procedure - Update Dec 2020** the nature of such procedures, with the attendant potential need for rapid anticoagulation and institution of cardiopulmonary bypass, often shifts the risk/benefit balance away from the extra time needed for IMA harvest. These situations are acceptable exclusions.
2629	**Other - acceptable STS provided exclusion – Update Dec 2020** This category is to be chosen rarely. Generally speaking, it is for those anatomic and/or clinical situations that would be considered contraindications to IMA use by the vast majority of surgeons. To be clear: there will be select clinical situations where the surgeon opts not to use the IMA because of concern about IMA quality but the reason will not be an STS acceptable exclusion. It is and has been the position of STS leadership that such situations are 1) uncommon; 2) should be uniformly distributed across the spectrum of patients, surgeons and/or participant groups; 3) can fall into a gray area and be managed differently by surgeons; and 4) no one surgeon or participant group should encounter these random situations with any particular increased frequency such that it would unduly impact the NQF measure for IMA use and consequently, star rating. Additionally, STS wishes to minimize the potential for gaming. As an example of gaming: small vessel caliber or inadequate

	flows are judgments that differ among surgeons. If accepted as exclusion, virtually any IMA could be coded in this manner as exclusion, and the IMA measure would become meaningless. With careful harvest and use of vasodilators like papaverine, almost all IMA's have adequate size and flow. STS understands that surgeons must always proceed in what they believe to be the best interests of their patient. If a surgeon selects this exclusionary category, the situation must be adjudicated by Surgeon Leadership of STS and deemed to be acceptable. If you have a documented reason for not using the IMA that does not fall into one of the above approved reasons and it not addressed below, please send in a question to the FAQ Mailbox Ask an Abstraction Question. It is important for sites to keep a copy of the FAQ email documenting the exclusion in the event of an audit.
2750	**Other – Update Dec 2020** 'Other' includes Cryo veins
3512	**FAQ Dec 2020** - I'm trying to understand the intent of this question. Are you asking which side the chordals were taken from or which side they are going to? **Answer** - Anterior or posterior refers to the origin of the chords not the destination.
4505	**FAQ Dec 2020** - For SEQ 4505, does timeframe of the result matter? I have an aortic dissection patient who, after discharge during follow up had genetic testing done. I'm wondering if I can use these results. **Answer** – In this scenario, you can use the results obtained post-op.
4889	**Update Dec 2020** – The intent is to capture patient's who have a prior patent internal mammary graft (either left or right) present, not an internal mammary graft that is placed during the current procedure.
4892	**Update Dec 2020** – The intent is to capture patient's who have prior proximal coronary bypass grafts not proximal bypass grafts that are placed during the current procedure.
4969	**FAQ Dec 2020** - Does the type of coronary reimplantation have a precedence over the other? I have had two cases now and you can only enter one choice in the software. The first case had both direct to root (button) and vein graft extension for reimplantation, and the other case had a cabrol with vein graft and a classic cabrol. Which do I choose in each case? **Answer** - For database purposes, it is most important to differentiate right/left classic buttons vs. any other configuration. Meaning - is there an impact on outcomes when you have to do

	anything but buttons. The answer would be to always select Cabrol if one is button and one is Cabrol. In addition, if one case had both SVG Cabrol and Classic Cabrol, it would make sense to always select SVG since SVG Cabrol is relatively infrequent compared to Classic Cabrol.
7005	**FAQ Dec 2020** - When SEQ 7005 is marked as yes for a patient at submission deadline, will the patient's data that has been coded and submitted thus far, such as prolonged ventilation, be included in the data & STAR ratings of the harvest report or does this field exclude the patient entirely until discharged from the acute care setting? **Answer** - Starting with H1 2020, these cases are excluded from analysis because the postoperative course is not complete. So, in an attempt to avoid incomplete data, we are excluding these cases until they discharged from acute care.
7016	**FAQ Dec 2020** - If smoking, alcohol, or drug use is coded as unknown, how do I code SEQ 7016? **Answer** - If smoking, alcohol, or drug use is "unknown" then you have not screened the patient. Screening would produce an answer to the amount of substance abuse. In this situation, you have to answer, SEQ 7016 as NO since there was no assessment of the patient's status.
7124	**FAQ Dec 2020** - When a patient is coded as "Discharged to Hospice" should the rule be that "Operative Mortality" is also answered "Yes" even if there is no date of death. **Answer** – Yes that is correct. Code "Yes" to "Operative Mortality" in SEQ 7124 and fill out date of death when the patient expires.
7215	**FAQ Dec 2020** - Should SEQ 7215 temporary field regarding consented Impella implantation using an open surgical approach be answered on all cases, or only those that received a Mechanical Cardiac Assist Device (i.e if seq #2137 = Yes). **Answer** - You only have to answer on patients who receive a MAD, however, this is not a child field and will show up as missing on DQR if you do not answer the question on all patients

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Seq	Update
395	**FAQ November 2020** - If a patient has treated endocarditis and is culture negative prior to OR entry, am I to code the negative culture as it is closest to OR entry, or should I capture the causal agent when the culture was positive? **Answer** - Capture the name of the organism that caused the endocarditis if known.
405	**Update Nov 2020** - The DLCO can be used to determine the severity of lung disease. The lowest % predicted of either the simple DLCO or the DLCO/VA uncorrected should be captured Mild: DLCO or the DLCO/VA >60% of predicted and < lower limit of normal. For example, DCLO is 72% and the normal value is 80-120%, then you would code Mild in this situation. Moderate: DLCO or the DLCO/VA 40-60% of predicted. Severe: DLCO or the DLCO/VA <40% of predicted. Code the most severe category if there is a discordance between the FEV1, DLCO, ABG, and inhaler criteria. See below examples: FEV1 is 60%, the DCLO is 45% and the ABG pO2 is 50, code as severe.FEV1 of 45% and DCLO of 40%, code as severe. FEV1 76% and DCLO 78% (normal limit 80-120%), code as mild.
930	**FAQ Nov 2020** - If the patient went into cardiogenic shock 36 hours prior to surgery and is still being stabilized with inotropes do we code that as cardiogenic shock at time of procedure? **Answer** – Code as cardiogenic shock at time of procedure if the patient has a requirement for parenteral inotropic or vasopressor agents or mechanical support (e.g., IABP, extracorporeal circulation, VADs) to maintain blood pressure and cardiac index above those specified levels. In this scenario, the patient was in shock 36 hours prior to OR and did remain on inotropes to maintain hemodynamics up until OR entry - code as cardiogenic shock at time of procedure.
930	**FAQ Nov 2020** - Sometimes an IABP is inserted prior to a procedure but it is not due to cardiogenic shock, it is placed for USA or prophylactic. Should I capture cardiogenic shock at time of procedure since the patient has an IABP in place? **Answer** - No do not capture cardiogenic shock for IABP placed for USA or prophylactic.

945	**Update Nov 2020:** Remote means that the patient has a history of cardiac arrhythmia more than 30 days prior to induction of anesthesia. No cardiac arrhythmia within 30 days prior to the induction of anesthesia. Recent means that the patient has a history of cardiac arrhythmia within 30 days prior to induction of anesthesia. The patient has experienced cardiac arrhythmia within 30 days prior to the induction of anesthesia
947	**FAQ Nov 2020** - The patient has a permanent pacemaker but is in sinus rhythm when they enter the operating room. Should this be coded as permanent paced rhythm? **Answer** - No, to code permanently paced rhythm the patient should be 100% paced.
971	**Update Nov 2020** - Persistent AF is defined as any documented episode of AF that fails to terminate, with or without intervention, within seven days of onset of atrial fibrillation.~~Persistent AF is defined as AF that fails to self-terminate within seven days. Episodes often require pharmacologic or electrical cardioversion to restore sinus rhythm.~~
1080	Other – Includes Angiomax and **update Nov 2020 Argatroban**
1155	**FAQ Nov 2020** - The patient is going in for isolated CAB after a STEMI treated with PCI approx 13 months prior. There were additional blockages not amenable to PCI that surgery was consulted to re-vascularize. There was no cath done in between STEMI/PCI and CAB. I coded SEQ 1145(Cardiac Catheterization Performed) as "no" because the cath wasn't within one year. Can I still populate SEQ 1155 and child fields with the cath report data, or does this data have to be within one year also? **Answer** – Yes, you can populate those fields since that is the only data that you have in this scenario.
1179/1181	**FAQ Nov 2020** – Per the Cath, there is a 50% stenosis in the native LAD and an 80% in-stent restenosis in the Diagonal. How do I code the LAD distribution stenosis? **Answer** - Code SEQ 1179 as >= 70% to capture the highest stenosis in the LAD distribution and code SEQ 1181 as native artery stenosis and stenotic stent.
1180/1184/1188 /1192	**Intent/Clarification: Update Nov 2020 Is location of stenosis known within the distribution?**

1617	**FAQ Nov 2020** - Patient has trace regurgitation and no stenosis but is brought into OR for AV repair leaflet debridement r/t Lambl's excrescences. Would I code AV disease as "yes" since the patient was brought to OR for AV repair? **Answer** – Yes, the AV has disease that requires an AV repair.
1710	**FAQ Nov 2020** - I often see on the echo "valve appears normal" followed by "mild regurgitation". So, if there is no mitral valve disease do I document the regurgitation? **Answer** – Code mild regurgitation and code Yes to MV disease. The valve should be coded as being diseased if there is mild, moderate or severe insufficiency.
1711	**FAQ Nov 2020** - Does the surgeon have to document Carpentier Classification, or can the data manager infer the functional class of the mitral valve if pathology is dictated? **Answer** - The Provider does not have to document the class. If you can determine the class based on documentation in the chart, then code as such. For more complicated scenarios, where the documentation is unclear or an etiology can fall into more than one class, then seek clarification from the Provider.
1711	**FAQ Nov 2020** - One of my surgeons said he typically associated Carpentier class with mitral regurgitation, not stenosis, but on the DCF, Type IIIa seem stenosis-related. Can you confirm that Carpentier class is appropriate/should be documented for Mitral Stenosis patients? **Answer** - Carpentier functional classification of mitral valve disease, which includes stenosis or regurgitation, is used to describe the mechanism of valvular dysfunction. This classification is based on the opening and closing motions of the mitral leaflets.
1970	**Update Nov 2020** – Previous TAVR that needs TAVR valve-in-valve procedure, code as NA not a CV surgery.
1970	**Update Nov 2020** - Prior pericardial window that needs a CABG, code as first CV surgery since in a pericardial window, even though you enter the pericardial space, you do not operate on the heart.
1970	**Update Nov 2020** – Prior epicardial ablation procedure that needs a CABG, code as first re-op since an ablation enters the pericardial space and involves operating on the heart tissue.
1970	**Update Nov 2020** – Prior Lead extraction (laser or no laser) procedure that needs a CABG, code as first CV surgery.
1970	**Update Nov 2020** – Prior ICD or pacemaker implant that needs a CABG, code as first CV surgery.

1970	**Update Nov 2020** - Stand-alone lead extraction can be coded as first re-op to identify the risk associated with these stand-alone lead extraction cases.
1970	**Update Nov 2020** - Patient with prior pericardectomy that needs a CABG, code as first re-op.
1970	**Update Nov 2020** - Pt had a failed attempt at repairing ASD-secundum in cath lab, that needs open surgical repair of ASD, code as first CV surgery.
1970	**Update Nov 2020** – Failed TAVR followed by emergent SAVR on the same day in the same setting, code SAVR as first CV surgery.
2105	**Update Nov 2020** - Capture both planned and unplanned operative approach conversions in this field.
2120	**Update Nov 2020** – CABG only for anomalous coronary artery will be coded as a CABG with no congenital procedure performed. If unroofing of the anomalous coronary artery is performed at the time of the CABG, then code as CABG plus congenital procedure.
2130	**FAQ Nov 2020** – During a failed TAVR or during a planned transcatheter valve in valve procedure, do you capture the original valve as an explant even if you don't physically explant the transcatheter valve? **Answer** – Yes, you should still code as an explant so you can track the transcathter valve.
2137 / General Info MAD	**FAQ Nov 2020** – Post -Op patient went back to OR and had a mechanical assist device inserted, do we code SEQ 2137 Mechanical Assist Device Inserted as "yes" and fill out section L, or do we code this as a post op complication? **Answer** – Code SEQ 2137 as Yes and then complete section L for the appropriate mechanical assist device
2145	**FAQ Nov 2020** - If you have CAB and a LAA clip, but no AF is ever documented, do you abstract SEQ 2145 for an AFib procedure? **Answer** – Yes, code SEQ 2145 as YES and then SEQ 4139 or SEQ 4142 depending on what was performed.
2195	**Update Nov 2020** – CPT codes are optional to enter.

2285	If hospitals choose to develop a pre-op antibiotic protocol where 2 antibiotics are given, then both must be administered within one hour of surgical incision or start of procedure if no incision required (two hours if receiving Vancomycin or fluoroquinolone) in order to code YES to Seq 2285. **Update Nov 2020** – In protocol where 2 antibiotics are given, then both must be administered within their timeframe as stated above. For example, Ancef should be given within 1 hr one hour of surgical incision or start of procedure and Vancomycin should be given within 2 hr of surgical incision or start of procedure to code Yes.
2515	Yes – **Update Nov 2020 –** includes RBC given on pump
3500	**FAQ Nov 2020 - If a MV repair is attempted and converted to an MVR, do we only code the replacement?** **Answer – Yes, on the DCF, you can only choose repair or replacement. In this scenario, code as a MV replacement since that was the procedure performed.**
3502	Edge to edge repair - The mitral valve repair procedure included an edge to edge repair. Edge-to-edge repair is a surgical approximation of the mitral valve leaflets, sometimes called the Alfieri procedure or Bow Tie procedure. **Update Nov 2020 –** Transcatheter Mitral Clip cases are coded as edge to edge repair.
3786/3840	Update Nov 2020 – If a patient goes on the Heart Transplant list and receives a heart transplant while a temporary assist device is in place, then the temporary assist device is to be coded as a long-term durable device in SEQ 3840, instead of a temporary assist device in SEQ 3786.
4244	**Other – Update Nov 2020** includes ganglionic plexi ablation
4712	**FAQ Nov 2020** - A patient with a bicuspid aortic valve has severe aortic stenosis and bicuspid aortopathy (aneurysm). Patient had an AVR with ascending aortic replacement. For SEQ 4712, the primary indication for aortic surgery, should we code Aneurysm or Other for Valvular Dysfunction? **Answer** – Code Aneurysm in this scenario.
4725	**FAQ Nov 2020** - If there is no documentation whether the aneurysm is fusiform or saccular we can assume it is fusiform? **Answer** – Code as unknown. Although most aneurysms tend to be fusiform there needs to be documentation in the medical record indicating the type**.**

4855	**FAQ Nov 2020** - Does every patient who has an aortic root aneurysm have aorta-annular ectasia? **Answer** – No, there needs to be documentation of aorta root ectasia or dilated annulus in order to code aortic root ectasia.
4881	No – **Update Nov 2020** - Code NO if there is no documentation of arch anomalies.
5442	**FAQ Nov 2020** - If I abstract a Bentall procedure I would only enter the device under SEQ 5442 and leave SEQ 5450 blank, correct? I do not see an option for "no additional devices" in SEQ 5450. **Answer** – Yes that is correct. Enter the valve conduit in SEQ 5442. SEQ 5450 is for devices other than aortic valves and aortic valve composite grafts. There is no option in SEQ 5450 to enter X or no additional devices placed - this was an oversight in V 4.2 - unfortunately, this will show up as missing on your DQR.
5450	**FAQ Nov 2020** – I have noticed that there is no option for "no additional devices" in SEQ 5450, so I have devices 2-15 showing up as missing on my DQR. Is this correct? **Answer** – Yes this is correct. There is no option in SEQ 5450 to enter X or no additional devices placed - this was an oversight in V 4.2 - unfortunately, this will show up as missing.
5465	**Intent/Clarification:** This is the model number from the manufacturer related to the type of device implanted. There is no drop-down list of model numbers for aorta devices. **Update Nov 2020** - sites were instructed to enter harvest codes in the fields for aorta device model numbers in data specification version 4.20.2, starting at sequence 5465. The intent was to ease the data collection burden and help ensure that the most accurate data were being collected; it has come to our attention that this method cannot be used. **Starting November 1, sites will be required to enter the device model number in these fields, <u>not a harvest code</u>.**
6748 / 6780	**FAQ Nov 2020** - Patient had sternal dehiscence and returned to OR for sternal rewiring. I know I will capture this in SEQ 6748. Should I also capture as re-op non-cardiac in SEQ 6780? **Answer** – Capture both SEQ 6748 and SEQ 6780 in this scenario.
6860	**FAQ Nov 2020** - If post-op thoracentesis is attempted but no fluid was drained, do we still code Yes for this? **Answer** - Do not code SEQ 6860 if no fluid was drained.

6935 /6930	**FAQ Nov 2020** - My patient had a GI bleed secondary to an anticoagulant postoperatively. I said yes to sequence 6930 (AnticoagBleedEvntType). Should I also say yes to sequence 6935 GI Event and 6936 GI bleed? **Answer** – Yes, code SEQ 6930, SEQ 6935 and 6936 GI Bleed in this scenario
7015	**FAQ Nov 2020** - Our elective CABG patients often get their education regarding the importance of attending outpatient Cardiac Rehab during their PAT visit. Can I code "yes" to cardiac rehab referral in this situation? **Answer** – Yes, this is acceptable since it involves the PAT EOC and the continuum of care for the surgery patient. Make sure that you have this documentation available in the event of an audit since it is happening in another EOC.
7230	**FAQ Nov 2020** - Are patients that are covid positive patients being risked differently? **Answer** - Covid positive patients will be taken out of public reporting and risk adjusted results until more data can be captured.

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October 2020
Version 4.20.2

Seq	Update
405	Intent/Clarification: Update Oct 2020 The intent of this field is to capture those diseases that have produced a chronic change in lung function, typically manifested by the symptoms of chronic cough, wheezing, sputum production and/or dyspnea. The degree of functional impairment may vary by patient, by disease and over the span of time. The degree of impairment can be judged subjectively by symptomatic status or more quantitatively by pulmonary function testing and the frequency of symptomatic exacerbations requiring escalation of treatment. The ACSD is concerned about chronic changes in lung function and so transient conditions such as atelectasis, pneumonia, mild/transient or childhood asthma and isolated prior pneumothorax will not typically qualify as a chronic condition.
405	Update Oct 2020 - The typical cardiac surgery patient has a history of cigarette smoking and so the most common type of chronic lung disease in the ACSD population is Chronic Obstructive Pulmonary Disease, which includes chronic bronchitis and/or emphysema A number of these patients will require inhaled or oral pharmacological therapy (e.g., beta-adrenergic agonist, anti-inflammatory agent, leukotriene receptor antagonist, or steroid) and some will require supplemental oxygen. Pulmonary function testing is used to establish a diagnosis and to help assess its severity.
405	Update Oct 2020 Patients with chronic or extensive exposure to environmental dusts/chemicals (asbestosis, black lung disease or pneumoconiosis, etc) may qualify as having chronic lung disease based on an established diagnosis resulting from formal pulmonary evaluation. Similarly, prior lung radiation therapy typically results in radiation pneumonitis (acutely) and radiation fibrosis (chronically) and also qualifies as chronic lung disease, provided pulmonary function testing is not normal. Update October 2020 A history of chronic inhalation reactive disease asbestosis, mesothelioma, black lung disease or pneumoconiosis may qualify as chronic lung disease. Radiation induced pneumonitis or radiation fibrosis also qualifies as chronic lung disease. (if above criteria are met) A history of atelectasis is a transient condition and does not qualify.
405	Sarcoidosis can be considered a chronic lung disease if the patient meets the criteria based on pulmonary function studies, use of inhaled medications or steroids aimed at the lungs. Update October 2020 These patients will have restrictive physiology

405	Update Oct 2020 Grading the Severity of Chronic Lung Disease:It is important to understand that the criteria used to grade the severity of lung disease have evolved over time, but all grading schema incorporate the results of pulmonary function testing. The ACSD uses the FEV1 criteria noted above. We do so because it is a reasonable framework, and it has been a stable format over the years both for the purposes of risk model development and consistency in reporting over time. However, other grading systems, such as the Global Initiative for Chronic Obstructive Lung Disease or GOLD criteria for FEV1 grading have changed over the years. GOLD uses slightly different cutoffs in FEV1 for grading the severity of disease. Additionally, GOLD currently uses a severity schema that incorporates both PFTs and clinical symptoms and response to treatment. So, when you see a difference between the surgical team and the pulmonologist, it may be the results of using different grading systems. Please use only the ACSD criteria listed above
410	Obstructive chronic lung disease is characterized by chronically poor airflow. It typically worsens over time and the main symptoms include shortness of breath, cough, and sputum production (ex. COPD; Chronic Bronchitis; Emphysema). Update Oct 2020 Obstructive chronic lung disease is caused by conditions that obstruct the flow of air through the respiratory system That obstruction can come from the narrowing of smaller or larger bronchioles from chronic inflammation, excessive contraction of smooth muscles or from the loss of elastic recoil in the lungs (such as in severe emphysema due to the destruction of alveolar units). For our patient population, COPD (Chronic Obstructive Pulmonary Disease) is by far the most common entity creating an obstructive defect. Asthma, as noted in the prior section, creates reversible obstruction. In its earlier or milder forms, it typically does not create chronic obstruction. However, long standing or poorly treated asthma may demonstrate chronic obstructive changes on PFTs. Other causes of chronic obstruction are from bronchiectasis and cystic fibrosis, but these conditions are very uncommon in the ACSD patient population

410	Reactive - Update Oct 2020 - this category should rarely, if ever, be used. Reactive lung disease is an older construct, its use is somewhat controversial, it does not have a clear definition and has been used to describe different conditions. It is sometimes informally used as a placeholder for asthma before a definitive diagnosis can be made. Reactive airway disease should not be confused with Reactive Airway Dysfunction Syndrome or RADS, which is caused by excessive exposure to corrosive gases or vapors. Reactive lung disease is a specific type of reactive airway disease, a term used to generally describe a condition where the individual experiences asthma-like symptoms after exposure to toxins. This can include asbestosis and mesothelioma.
410	Update Oct 2020 Interstitial fibrosis comprises a group of parenchymal lung diseases that are more properly included in the restrictive lung disease category, as noted above. Please disregard this category and code interstitial diseases in the restrictive category. Interstitial lung disease (ILD), also known as diffuse parenchymal lung disease (DPLD), refers to a group of lung diseases affecting the interstitium (the tissue and space around the air sacs of the lungs). It concerns alveolar epithelium, pulmonary capillary endothelium, basement membrane, perivascular and perilymphatic tissues. The term ILD is used to distinguish these diseases from obstructive airways diseases; (ex. ILD, DPLD, Cystic Fibrosis)
410	Update Oct 2020 - Restrictive lung diseases are less common than obstructive but comprise a diverse group of underlying conditions. The hallmark of all these diseases is that they restrict the ability of the lung to expand to normal volumes. These diseases include entities that: 1)interfere with the interstitium or lung parenchyma itself. They include things like idiopathic pulmonary fibrosis, the interstitial pneumonitises, collagen vascular disease (such as lupus, rheumatois arthritis, scleoderma and the like), chronic infection (such as TB and pneumocystis), occupational related diseases (such as asbestosis, silicosis, berryliosis and hypersensitivity pneumonitis), drug toxicity (as seen with amiodarone and chemotherapy) and radiation fibrosis.2) affect the chest wall, pleura or diaphragm can restrict the lungs as well. Examples are kyphoscoliosis, pectus excavatum, pleural thickening or effusion (as from chronic inflammation or even mesothelioma), elevated diaphragm and extreme abdominal obesity. 3) neuromuscular diseases such as as myasthenia and

	Amyotrophic Lateral Sclerosis can weaken respiratory muscles and impair lung expansion.
420	FAQ October 2020 - If a FEV1 is 49.9% do I code this as 49 or 50? Answer – Do not round up, code as 49.
485	Update October 2020 Hemochromoatosis can lead to liver disease but is not considered liver disease by itself
695	Other valve procedure Update Oct 2020 may include Angiovac valve procedures
915	FAQ Oct 2020 - What do I code when the NYHA is documented as NO or Class 0? Answer - NYHA Class 0 will be coded as NYHA Class 1. NYHA Class NO will be coded as not documented
1020	Yes - Update Oct 2020 Capture those who are prescribed to take medications on a regular schedule and are presumed to be at a therapeutic level, patients who receive an ACE/ARB within 48 hours prior to entry into the OR
1050	Update Oct 2020 Do NOT include one-time boluses of Nitroglycerin.
1060	Update Oct 2020 This includes a one time dose of ADP within 5 days of surgery.
General Information Coronary Artery Stenosis	Update Oct 2020 – Coding of Native Vessel Stenosis in Patients who have had prior CAB Surgery. If all grafts are patent bypassing stenosis in the native vessels then capture RCA, LAD, CX, LM distribution 50% or > as NO. The goal is to capture new disease of the vessel supplying blood to the myocardium. We are specifically looking for stenosis of vessels that are not bypassed, or stenosis in the bypass graft, or stenosis in a native artery with a graft that may be obstructing flow to the myocardium. See examples below:
General Information Coronary Artery Stenosis	Patient had prior CAB x 3 most recent Cath shows 90% stenosis in native mid-Left Anterior Descending (mLAD), 80% stenosis in native Circumflex (CM), and 95% stenosis in native distal RCA. The Posterior Descending Artery (PDA) originate from the RCA. Bypass grafts to mLAD, OM1, and right PDA are patent and the Provider documents that there is no obstructive disease and no bypass grafts are performed, code the LAD, CX, and RCA distribution as NO to stenosis 50% or greater.

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General Information Coronary Artery Stenosis	Patient had prior CAB x 2 most recent Cath shows 90% stenosis in native Mid LAD, 80% stenosis in native OM 1 and 95% stenosis in native distal RCA. Bypass grafts to mid LAD and right PDA are patent and the Provider is planning on performing a bypass of the native OM1, code the LAD and RCA distribution as NO to stenosis 50% or > and the CX distribution as > 70%.
1615 / 1616	FAQ Oct 2020 - If the conclusion of the ECHO provides values for mean gradient and peak velocity both under stress and at rest, which values go into the registry? Answer - Code the REST values in this scenario.
1970	Update Oct 2020 - ANY Endovascular explant is counted as a previous incidence. For example, if a patient had a TEVAR in the past and is now having another aorta procedure where a prior endovascular stent or graft is explanted during procedure, code as first re-op.
1970	Update Oct 2020 - Previous Left Mini Thoractomy for MIDCAB that needs Sternotomy AVR, code as first re-op.
1970	Update Oct 2020 - Previous Left Mini Thoractomy for MIDCAB that needs Open Thoracoabdominal aortic aneurysm (TAAA) repair via left Thoracotomy, code as first CV surgery.
1970	Update Oct 2020 - Previous sternotomy CABG that needs Mini Rt thoracotomy Mitral Repair, code as first re-op.
3395	Update Oct 2020 - Left Main endarterectomy done in conjunction with an AVR is considered part of the AVR procedure and should not be coded elsewhere
3424	Pannus/thrombus removal (Native Valve) – the aortic repair included pannus or thrombus removal. Pannus is the ingrowth of fibrous tissue into the valve apparatus. Update Oct 2020 – may also include removal of vegetation.
3502	Pannus/Thrombus Removal (Native Valve) - The mitral repair included pannus or thrombus removal. Pannus is the ingrowth of fibrous tissue into the valve apparatus. Update Oct 2020 – may also include removal of vegetation.
3620	Annuloplasty Ring Surgical - Update Oct 2020 may also be referred to as Annuloplasty Band
3637	Pannus/Thrombus Removal (Native Valve) - The tricuspid repair included pannus or thrombus removal. Pannus is the ingrowth of fibrous tissue into the valve apparatus. Update Oct 2020 – may also include removal of vegetation.

3690	Pannus or Thrombus removal - Update Oct 2020 – may also include removal of vegetation
4139	FAQ Oct 2020 – How do I code left atrial appendage obliteration without MAZE procedure done. Answer - Code SEQ 4139 as YES and then NO to SEQ 4191 and SEQ 4240 if no ablation lesions are created.
4952	FAQ October 2020 – How do I code for an aortic valve sparing procedure and aortic root and ascending aorta replacement. If I code, 4952, then I have to either enter AV Replacement, AV Rrepair or Surgical Prosthetic Valve Intervention (Not explant of valve)? Answer – Code SEQ 4951 as Yes, leave SEQ 4952 blank, then code the Root procedure in SEQ 4963.
4958	Pannus/thrombus removal (Native Valve) – the aortic repair included pannus or thrombus removal. Pannus is the ingrowth of fibrous tissue into the valve apparatus. Update Oct 2020 – may also include removal of vegetation.
7320	Attending anesthesiologist medically directing AA (Attending anesthesiologist Update Oct 2020 Anesthesiologist Assistant)
7579	Update Oct 2020 – The start of rewarming is defined by documentation that the rewarming phase begins on the perfusion record
7705	Indicate the value of lactate in Update Oct 2020 mg/dl mmol/L measured after OR Exit to one hour post OR Exit. Do not record missing data as a zero value.
7716	Update October 2020 – this does not include PRN IV sedatives. The intent is to capture IV infusions of the above listed sedatives.

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305	FAQ Sept 2020 - Patient came in for explantation of RV leads x2, explantation of AICD generator, implantation of RV lead, and implantation of new AICD generator. Patient was in "extended recovery" status the entire stay. Do I code surgery date as admit date even though the patient was never technically an inpatient? Answer - Yes code surgery date as admit date in this scenario
486	FAQ September 2020 - Patient has a history of liver disease and cirrhosis s/p liver transplant 2016. Are you still considered to have cirrhosis despite the transplant? Answer - In this scenario, since the patient has new liver, only code cirrhosis if the new liver has cirrhosis.
895	Update September 2020 - For elective patients, choose the CAD presentation that was the cause of consultation for CAB.
1141	Update September 2020 Repatha and other PCSK9 inhibitors are captured as a non-statin/other.
General Information Coronary Artery Stenosis	Update September 2020 – Coding of Native Vessel Stenosis in Patients who have had prior CAB Surgery. If all grafts are patent bypassing stenosis in the native vessels then capture RCA, LAD, CX, LM distribution 50% or > as NO. For example, patient had prior CAB x 3 most recent Cath shows 70% stenosis in native LM, 90% stenosis in native LAD, 80% stenosis in native CX, and 95% stenosis in native RCA. Bypass grafts to mid LAD, OM1, and right PDA are patent, code the LM, LAD, CX, and RCA distribution as NO to stenosis 50% or >.
General Information Coronary Artery Stenosis	Update September 2020 For NA choice – Use the NA choice in situations where the patient does not anatomically have the vessel such as no Ramus and also in situations where the vessel or any part of the vessel distribution has not been addressed in the medical record. For example, there is no mention of the RCA in the cath report or any of the other documentation in the medical record, code the RCA distribution 50% or > as NA.
General Concepts Valve Disease and Regurgitation	Update September 2020 - For pre-op valve regurgitation and stenosis Parent fields (Seq 1585,1600,1679,1690,1774,1776,1812,1822) the answers are Yes and No. If you have no documentation of any regurgitation or stenosis then code NO. Do not open up the child fields and code not documented.

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1601/ 1777 /1820	Update September 2020 Critical stenosis can be coded as severe.
1970	Update September 2020 - Prior thoracic endovascular aneurysm repair that needs another thoracic endovascular aneurysm repair should be coded as first reoperation.
2245 / 2270	Update September 2020 – If a patient is undergoing a catheter based or EP procedure that is not required to be entered into the STS Database and the patient has to convert to an open surgical procedure, for example, while undergoing a TAVR, surgery was converted to open SAVR, use the below directions for coding of OR entry and incision time: 1) For sites that have separate cath and OR logs. You will use the times on the OR log. 2) For sites that do not have separate Cath/OR logs and continue to use one log, the OR entry time and OR incision time will be coded as the same time. In this scenario, the incision time will be the time of sternotomy or open incision to perform the emergent STS qualifying procedure.
2361	All bicaval cannulation will be captured as as RA and SVC.
5433	FAQ September 2020 - If the intra-op EEG in a circ arrest case is documented as "isoelectric activity" is this coded as "yes" for documented EEG abnormality? Answer – Do not code as Yes for documented EEG abnormality in this scenario. An isoelectric EEG is abnormal, but it is "normal" for patients undergoing circulatory arrest.
5440	For section M2, 'device' refers to any implanted material within the Update July 2020 aortic valve for combined aorta and aortic valve procedures and the aorta; grafts or stent-grafts. This will include all synthetic prosthetics inserted. This may include Dacron, PTFE, homografts, autografts, stents, stent-grafts, and Update September 2020 patch grafts.
6610	Update September 2020 – Do not round ICU hours up. For example, if the ICU hours are 26.347, enter 26.34.
6595	Update September 2020 – Do not round additional ventilator hours up. For example, if the ventilator hours are 50.626, enter 50.62.

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7100	FAQ September 2020 - The training manual states we should take the last EF prior to discharge to determine if an ACE/ARB is required due to an EF < = 40%. A patient had a pre op EF of 46%. His post anesthesia, pre incision echo has EF of 35-40%. He has no other echo done prior to discharge. Would I use the intra op pre-incision echo results to determine the ACE/ARB at discharge? Answer - If an intraop-post surgery EF or a post-op EF had been done then the later of the 2 would be the last EF. In this scenario, the last EF prior to surgery would be the last EF to use. We would not recommend using the intra-op pre-incision EF results to determine if an ACE/ARB is needed at discharge.
7320	FAQ September 2020 – How should I code an Attending Anesthesiologist medically directing anesthesia PA? Answer - Code as Attending Anesthesiologist medically directing CRNA.
7335	FAQ September 2020- Do we capture heparin administered by anesthesia that is given during an off-pump case. Answer – Yes, capture any heparin given by anesthesia during surgery.

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Seq	Update
General Update UDI Number	STS does not want data managers to manually enter Device UDI numbers into the database. If your facility scans the UDI into the HIM record and your vendor allows automatic entry into their software, please use this method for entry. If the UDI is scanned into the chart and you can copy and paste this into our vendor software, please use this method. Update August 2020 - If you can't use either of these methods please leave blank.
485	FAQ August 2020 - Would ischemic hepatitis be coded as liver disease? Patient initially presented with septic shock and endocarditis with no documented prior liver history. Answer - No, ischemic hepatitis or shock liver is a result of the sepsis and is not liver disease as defined in SEQ 485.
545	Update August 2020 – Timeframe code the study closest and prior to OR Entry, done within 1 year of OR date.
810	Other Cardiac Intervention (not listed) – such as ethanol ablation, coronary artery brachytherapy or **Update July 2020** temporary mechanical assist devices that are placed open via implantation using an open surgical approach (transaxillary or transaortic) and **Update August 2020** Infrarenal abdominal aorta procedures.
810	Update August 2020 - If a patient has had multiples of the same type of intervention, coding once for each separate intervention is acceptable. For example, patient has had multiple previous cardioversions, code cardioversion one time in the grid
895	Update August 2020 - Time Frame: The highest value from arrival at transferring facility / arrival to your facility ~~admission~~ to OR Entry
1071	FAQ August 2020 - Patient receives aspirin at 1:15 PM the day before surgery with an AM OR time at 0808. Is that to be counted as "1" day of discontinuance (per the midnight instruction) or "0" as it is less than 24 hours. Answer – If it is clear in the documentation that the aspirin was given < 24 hours, then code "0". If documentation is unclear, then use the day discontinuation counting method as above.

General Information ECHO / Hemodynamics	Update August 2020 - If there are multiple values for the valve regurgitation within the same echo such as Under the Mitral Value is says moderate regurgitation and Under Impression is states mild regurgitation, use the value on the final impression / conclusion / summary from the reading physician.
1570	FAQ August 2020 - For PA Systolic pressure, the instructions specify not to take a value from in intra-op measurement after induction of anesthesia. However, the general statement for the hemodynamics section #3 states that you can obtain values that were not available anywhere else from any intra-op measurement prior to incision time. Which of these instructions are we to follow? Answer - For SEQ 1570, it is specific that if there are no PA pressures recorded or available pre-op from heart cath or echo, that you can only obtain pre-induction values. Do not use pre-incision values.
2631	Update August 2020 – Code the total number of distal anastomoses constructed using an artery to include IMA, radial, and other arterial conduits in this field.
3424	Update August 2020 - Leaflet commissural resuspension suture with replacement of the ascending aorta is not captured as a valve sparing root procedure in SEQ 4968. It is captured in SEQ 4958.
4956	Update August 2020 – For Composite Valve Conduit, capture SEQ 4956 as Other. Complete SEQ 4966 and SEQ 4967 to capture the type of composite valve conduit.
4958	Update August 2020 - Leaflet commissural resuspension suture with replacement of the ascending aorta is not captured as a valve sparing root procedure in SEQ 4968. It is captured in SEQ 4958.
5066	TEVAR are included as endovascular aorta cases if a CT surgeon on the participant agreement participated in the TEVAR. **Update August 2020** - TEVAR with any portion above the level of the diaphragm is to be entered into the database. EVARs are not included in the STS Database.
5220, 5270, 5320, 5360,	FAQ August 2020 - How do you code visceral vessel management for a TEVAR in the Descending Thoracic Aorta when the patient has a prior history of fenestrated stent-graft repair of juxtarenal aortic aneurysm? Should I code the

	presence of these prior stents and fenestrations to the celiac, mesenteric, renal and Iliac arteries even though they were not done during the current procedure? Answer - Code as "native flow" since the visceral vessels were not manipulated as part of the descending TEVAR procedure.
6749	Update August 2020 - If SEQ 6700 Post-Op-Deep Sternal Wound is coded "yes", then SEQ 6749 Deep Sternal Wound Infection Within 90 Day is automatically coded "yes" as well. For sites who do not normally follow infection for 90 days: If you code Yes to SEQ 6700 DSWI infection within 30 days, then also code SEQ 6749 as "Yes". For all other patients that do not have DSWI infection within 30 days, code unknown for SEQ 6749.
7016	FAQ August 2020 - Patient was screened for tobacco, alcohol and illicit drug use, but the patient was not positive for tobacco, alcohol or drug use. How do I code SEQ 7016? Answer - This is a 2 part question did you screen and did you provide counseling if necessary. In this scenario, code "Yes" you screened the patient for tobacco, alcohol and illicit drug use and no counseling was needed.
7165	FAQ August 2020 - If a patient is readmitted and a MRI with or without contrast is performed is this considered an "Other Procedure"? Answer - No, "Other" procedure for SEQ 7165 does not include diagnostic procedures and is defined as an invasive procedure with intent to treat. For example, patient is readmitted and an EGD with cauterization is performed for GI bleeding. This is to be captured as "other procedure' In SEQ 7165.
7225	FAQ August 2020 - Patient had documented positive COVID-19 PCR in month before surgery. COVID-19 negative x 2 in hospital before surgery. Post op course uneventful. Patient readmitted within 30 days post discharge and COVID-19 test positive again. What positive date should I code in SEQ 7225? Answer - Code the positive test date closest to surgery in this scenario.
7451	FAQ August 2020 - Our facility is using Isolyte which is not on the list of crystalloids in the DCF. How should this be captured for SEQ 7451? Answer - In this scenario, code SEQ 7448 as "Yes" and the amount given in SEQ 7450. Leave the type blank in SEQ 7451.
7579	Update August 2020 - The intent is to know if the arterial outflow temperature was measured by perfusion and if so, what was the highest arterial outflow temperature during rewarming.

7124 / 7125	A discharge to palliative care is an acknowledgement that the patient is not expected to survive. Therefore, a discharge to palliative care is equivalent to a discharge to hospice and should be regarded as a mortality **unless** the participant group provides proof otherwise.

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Seq	Update
150	FAQ July 2020 - Our electronic medical record allows a selection of 'two or more races' to capture patients of multiple race. When this is the only documentation available within our EMR for a patient, how do we code SEQ 150? Answer - Code SEQ 150 as NO in this scenario. It is important to work with your facility to accurately code Race since it is a component of the Risk Model
Lab General Statement	Update July 2020 – For lab values that are documented as more or less than a value (< or >), code as the next decimal point below or above the value. For example, if the total bilirubin closest to entry into the OR is documented as "<0.2". Code as 0.19
805	Implantable Loop Recorder, LifeVest, defibrillation or AED/ AICD shock for arrest or placement of IABP or Update July 2020 catheter based temporary mechanical assist device is not considered a previous CV intervention in Seq 805.
805	Update July 2020 Temporary mechanical assist devices that are placed open via implantation using an open surgical approach (transaxillary or transaortic), can be captured as Other Cardiac Intervention (not listed).
1855	Update July 2020 – the selection for "Endocarditis" is to be used for Endocarditis of the native valve. There is a separate selction for Endocarditis of a prosthetic valve.
2285 and 2290	Update July 2020 -The intent of the exclusion is to eliminate patients who are currently infectious and currently receiving antibiotics on a regular schedule within 24 hr of surgery
2566, 2571, 2576	FAQ July 2020 - Post repair AV Mean gradient was reported as 7-10 mmHg. How should I code this? Answer - Capture the highest value in this range. Code as 10 mmHg. This concept also applies to SEQ 2571 MV mean gradient and SEQ 2576 TV mean gradient.
4521	Note: Currently, the only applicable choice for root repair type is open – Update July 2020 the other choices in the selction set were added in the event endovascular root procedures started.
4966 and 5440	Update July 2020 Ross procedure with autograft capture in SEQ 4966 and for SEQ 5440 code as No to devices inserted.
5440	For section M2, 'device' refers to any implanted material within the Update July 2020 aortic valve for combined aorta and aortic valve procedures and the aorta; grafts or stent-grafts. This will include all synthetic prosthetics inserted. This may include Dacron, PTFE, homografts, autografts, stents, and stent-grafts. Do not capture the felt or Bioglue
6586	Update July 2020 Leave field blank if patient not intubated.
6870	FAQ July 2020 - Can you please explain what an "0.5 Rise" means? Does this mean that if a patient has a preop creatinine of 1.0 prior to

	surgery and a highest postop creatinine of 1.5 that this patient should be marked as "Renal Failure" in 6870 because he/she had a rise of 0.5? Answer - One of the indicators for renal failure is a serum creatinine level ≥4 mg/dL with at least a 0.5 mg/dL rise. For example, if your pre-op creatinine was 4.0 or greater and your highest post-op creatinine rises 0.5 or greater then that is coded as renal failure. For example, pre-op crt 4.1 and post-op 4.6 = renal failure.
7215	Temporary Field - Definition: The patient had a planned and consented Impella implantation using an open surgical approach (transaxillary or transaortic) during the index cardiac procedure. Please see Training Manual for complete details.
7225	FAQ July 2020 - It is documented that my patient had a positive COVID-19 test in April 2020. What date do I enter into the database when I only have the month and year of the positive COVID-19 test? Answer - If month and year are known code month/01/year. If only the year is known code 01/01/Year. Leave Blank if you have no information on the month, day, or year of the test.
7230	Update July 2020 - The nasal swab/OP swab, lower resp (RNA) test is the test that we are looking for. The IgG is the antibody test, this is not the test we are looking for. See image in Training Manual.