# Dateneingabe Handbuch

NATIONALE QUALITÄTSSICHERUNG ANGEBORENER HERZFEHLER
*GERMAN QUALITY ASSURANCE FOR CONGENITAL HEART DISEASES*

REGISTER
ANGEBORENE HERZFEHLER

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# Einleitung

Das Dateneingabe-Handbuch enthält 3 Kapitel:

Kapitel 1 enthält in Listenform die Dateneingabefelder der einzelnen Eingabe-Masken.

Kapitel 2 enthält die spezifischen Ausfüllhinweise zu den einzelnen Dateneingabefeldern der einzelnen Datenmasken.
Hier finden Sie folgende Aufstellung:

| Item | Wert(e) | vorhandenen Plausibilität | Hilfstext(e) | weiter Informationen für den Benutzer |
|---|---|---|---|---|

Kapitel 3 enthält als Anlage die hinterlegten Katalogen in Tabellenform.

Die Definitionen und Einschlusskriterien für die Index-Prozeduren und die Zuordnungskriterien der einzelnen Fälle in den Übersichtskapiteln der Jahresauswertung, finden Sie im aktuellen Auswertehandbuch. Das Auswertehandbuch ist auf der Webseite http://www.nationale-qs-ahf.de/

# Kapitel 1: Die Dateneingabefelder in Formularen

## 1. 1 Formular QS-Allgemein

Geburtsdatum
Geschlecht
Pränatale Diagnose
Schwangerschaftswoche
Sterbedatum
Liegt eine Einverständniserklärung für die Datenübermittlung an die EACTS vor?
Hauptdiagnose - Gruppe
Hauptdiagnose
kardiale Nebendiagnose
nicht kardiale Nebendiagnose

## 1. 2 Formular QS-Aufenthalt

**Seite Aufnahme**

Aufnahmedatum
Gewicht bei Aufnahme
Körperlänge bei Aufnahme
Grund der Aufnahme
NYHA Klassifikation
Ross Heart Failure Classification
postrheumatische Herzerkrankung
Anzahl vorangegangener Herzkatheterinterventionen
Anzahl herzchirurgischer Operationen
letztes vorbehandelndes Zentrum
Details zum vorherigen Zentrum
Status Post

**Seite Prozedur / Prozedurtyp Operation**

Fallkategorie
prozedurbezogenes Gewicht
prozedurbezogene Größe
prozedurbezogene Beatmungsdauer
Prozedurdatum
Entlassung Intensivstation oder kein stationärer Aufenthalt in der Intensivstation
prozedurbezogene Hauptdiagnose(Eingriffsdiagnose)
prozedurbezogene Komplikation
allgemeiner kardialer Risikofaktor
nicht kardialer Risikofaktor
primäre Operation
zusätzliche Operation(en) während desselben Eingriffs
Prozedurzeit (Schnitt-Nahtzeit)
Extrakorporale Zirkulationszeit
Aortale Abklemmzeit mit koronarer Ischämiezeit
Kreislaufstillstandszeit
isolierte Hirnperfusion

isolierte Hirnperfusionzeit
Chirurg
minimal invasiver Eingriff
Temperaturüberwachung
niedrigste Kern-Temperatur
Nah-Infrarot Spektroskopie
Eingriffsraum
Wurden Blutprodukte während der Operation oder Intervention gegeben?
TEE
Komplikation bei Operation oder Intervention?

**Seite Prozedur / Prozedurtyp Intervention**
prozedurbezogenes Gewicht
prozedurbezogene Größe
prozedurbezogene Beatmungsdauer
Prozedurdatum
Entlassung Intensivstation oder kein stationärer Aufenthalt in der Intensivstation
prozedurbezogene Hauptdiagnose (Eingriffsdiagnose)
prozedurbezogene Komplikation
allgemeiner kardialer Risikofaktor
nicht kardialer Risikofaktor
primäre Intervention
zusätzliche Intervention(en) während desselben Eingriffs
Prozedurzeit (Gefäßpunktion - Schleuse gezogen
Durchleuchtungszeit
Strahlendosis
Internationalist
Intubationsnarkose durchgeführt?
Anästhesist anwesend
Eingriffsraum
Wurden Blutprodukte während der Operation oder Intervention gegeben?
TEE
Komplikation bei Operation oder Intervention?
Bergensen Score

**Seite Prozedur / Prozedurtyp Hybrideingriff**

Fallkategorie
prozedurbezogenes Gewicht
prozedurbezogene Größe
prozedurbezogene Beatmungsdauer
Prozedurdatum
Entlassung Intensivstation oder kein stationärer Aufenthalt in der Intensivstation
prozedurbezogene Hauptdiagnose (Eingriffsdiagnose)
prozedurbezogene Komplikation
allgemeiner kardialer Risikofaktor
nicht kardialer Risikofaktor
primäre Operation
zusätzliche Operation(en) während desselben Eingriffs
Prozedurzeit (Schnitt-Nahtzeit)
Extrakorporale Zirkulationszeit

**Seite Entlassung**

Entlassungsdatum
Hauptdiagnose
Beatmungsdauer
gesamter Aufenthalt Intensivstation [in Tagen]
Gab es ein sehr seltenes, schwerwiegendes Ereignis (Sentinel Events)?
sentinel event - Details
Entlassungsart
falls verstorben, Todesursache kardial?
falls verstorben, Sterbedatum

## 1. 3 Formular QS-Nachkontrolle

Patient lebt?

Patient lebt - Datum der Nachkontrolle

Patient lebt - Erneute Intervention/Operation erforderlich?

Patient lebt - Grund der Wiederaufnahme innerhalb von 30 Tagen

Patient verstorben - Todesdatum

Patient verstorben - Todesursache kardial?

# Kapitel 2: Ausfüllhinweise zu den Dateneingabefeldern

## 2. 1 Formular QS-Allgemein

| Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|
| Geburtsdatum | dd.mm.yyyy | Muss dem Geburtsdatum bei der PID-Erzeugung entsprechen. | | |
| Geschlecht | männlich/weiblich/unbekannt | Muss dem Geschlecht bei der PID-Erzeugung entsprechen. | | |
| Pränatale Diagnose | ja/nein/unbekannt | | Wird positiv beantwortet, wenn pränatal ein angeborener Herzfehler diagnostiziert wurde. Eine Übereinstimmung mit der postnatalen Diagnose muss dabei nicht vorliegen. | |
| Schwangerschaftswoche | 22-43 / unbekannt | größer 21 und kleiner 44, keine Plausibilität auf das Alter des Kindes gewünscht. | Bei Kindern unter einem Jahr muss die Schwanger-schaftswoche immer angeben werden. | |
| Sterbedatum | dd.mm.yyyy | muss größer/gleich Geburtsdatum sein, nicht in der Zukunft, nach letzter Aufnahme | | Wenn das Sterbedatum nicht genau bekannt ist, soll der letzte Tag des Monats angegeben werden, in dem er gestorben ist. |
| Liegt eine Einverständniserklärung für die Daten-übermittlung an die EACTS vor? | ja/nein | | | |

| Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|
| Hauptdiagnose - Gruppe | **Katalogauswahl**<br>Siehe Kapitel 3.1 Katalog Hauptdiagnose Teilkatalog Überschriften | | | |
| Hauptdiagnose | **Katalogauswahl**<br>Siehe Kapitel 3.1 Katalog Hauptdiagnose | | Die Hauptdiagnose ist der führende Herzfehler, der die Behandlungsdauer/das Behandlungskonzept maßgeblich beeinflusst. Die Fehlbildung eines Ventrikels ist immer führend zu nennen, z.B. Hypoplastisches LHS oder Single Ventricle. | |
| kardiale Nebendiagnose | **Katalogauswahl**<br>Siehe Kapitel 3.2 Katalog kardialae Nebendiagnosen | | Alle Diagnosen, die das Risikoprofil des Patienten beschreiben, werden als Nebendiagnose geführt. Sie sollen ein vollständiges Bild des Patienten herstellen.<br>Kann sich während des Behandlungsverlaufs ändern. Im Fallaufenthalt erworbene Nebendiagnosen sollen im Regelfall nicht während des QS-Aufenthaltes nachkodiert werden, sondern erst bei einer erneuten Aufnahme (Ausnahme: die erworbene kardiale Nebendiagnose ist die prozedurenbezogene Hauptdiagnose bei einer Folgenprozedur im selben Fallaufenthalt). | |
| nicht kardiale Nebendiagnose | **Katalogauswahl**<br>Siehe Kapitel 3.3 Katalog nicht kardialae Nebendiagnosen | | Sollte als Nebendiagnose ein komplexes Syndrom vorliegen und es namentlich nicht im Auswahlkatalog zu finden sein, dann die jeweiligen Fehlbildungen, die zum Syndrom gehören, einzeln eingeben. | |

## 2. 2 Formular QS-Aufenthalt

**Seite Aufnahme**

| Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|
| Aufnahmedatum | dd.mm.yyyy | muss größer/gleich dem Geburtsdatum sein, nicht in der Zukunft | Bei mehreren Prozeduren gilt: Das Aufnahmedatum entspricht dem Datum, der behandelnden Abteilung, wo die erste Prozedur (Operation/Intervention) stattfand. | |
| Gewicht bei Aufnahme | kg (0 - 150) | Abhängigkeit vom Alter des Patienten zum Zeitpunkt der Aufnahme:<br><30 Tage: 0,3 - 10kg<br><1 Jahr: 0,3 - 30kg<br><6 Jahre: 3 - 60kg<br>>6 Jahre: >10kg | Gewicht bei Aufnahme | |
| Körperlänge bei Aufnahme | cm (0-259) | Abhängigkeit vom Alter des Patienten zum Zeitpunkt der Aufnahme:<br><30Tage: 25 - 70cm<br><1 Jahr: 30 - 130cm<br><6 Jahre: 50 - 160cm<br>>6 Jahre: >80cm | Körperlänge bei Aufnahme | |
| Grund der Aufnahme | Korrektur<br>Palliation<br>Elektiver geplanter Folgeeigriff<br>Akuter ungeplanter Folgeeigriff<br>anderer Grund | | Die Auswahl erfolgt Herzfehler bezogen, wobei die Behandlung auch in Teilen erfolgen kann.<br>***Elektiver geplanter Folgeeigriff***: Alle Nachoperationen/Interventionen, die im Konzept der Behandlung auftreten können.<br>***Akuter ungeplanter Folgeeingriff:*** Alle akuten Nachoperationen/Interventionen, die (meist) als Folge von Komplikationen durchgeführt werden müssen. | |

| Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|
| NYHA Klassifikation | I/II/III/IV/unbekannt | | NYHA I<br>Herzerkrankung ohne körperliche Limitation. Alltägliche körperliche Belastung verursacht keine inadäquate Erschöpfung, Rhythmusstörungen, Luftnot oder Angina pectoris.<br>NYHA II<br>Herzerkrankung mit leichter Einschränkung der körperlichen Leistungsfähigkeit.<br>Keine Beschwerden in Ruhe.<br>Alltägliche körperliche Belastung verursacht Erschöpfung, Rhythmusstörungen, Luftnot oder Angina pectoris.<br>NYHA III<br>Herzerkrankung mit höhergradiger Einschränkung der körperlichen Leistungsfähigkeit bei gewohnter Tätigkeit. Keine Beschwerden in Ruhe.<br>Geringe körperliche Belastung verursacht Erschöpfung, Rhythmusstörungen, Luftnot oder Angina pectoris.<br>NYHA IV<br>Herzerkrankung mit Beschwerden bei allen körperlichen Aktivitäten und in Ruhe. Bettlägerigkeit | Die NYHA Klassifikation ist für Erwachsene. |

| Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|
| Ross Heart Failure Classification | I/II/III/IV/unbekannt | | I - Asymptomatic<br>II - Mild tachypnea or diaphoresis with feeding in infants<br>dyspnea on exertion in older children<br>III - Marked tachypnea or diaphoresis with feeding in infants<br>marked dyspnea on exertion prolonged feeding times<br>with growth failure<br>IV - Symptoms such as tachypnea, retractions, grunting,<br>or diaphoresis at rest | Die Ross Heart Failure Classification für Kinder. |
| postrheumatische Herzerkrankung | ja/nein/unbekannt | | | |
| Anzahl vorangegangener Herzkatheterinterventionen | 0-999 | Wert muss im vorgegeben Bereich liegen | Alle Interventionen im Rahmen einer Sitzung zählen als eine Intervention. | |
| Anzahl herzchirurgischer Operationen | 0-999 | Wert muss im vorgegeben Bereich liegen | Alle OPs die während eines Operations-zeitpunktes durchgeführt werden zählen als eine OP.Bsp. Ross-OP und Klappersatz zählt als eine OP. ECMO und sekundärer Thorax Verschluss werden nicht gezählt. | |
| letztes vorbehandelndes Zentrum | Katalogauswahl | | Zentrum wo die IV, OP stattfand. Bitte geben Sie auch Ihr eigenes Zentrum an! | |
| Details zum vorherigen Zentrum | Freitext, max 50 Zeichen | | | |
| Status post | **Katalogauswahl**<br>Siehe Kapitel 3.4 Katalog status post | | | Pflichtfeld, wenn Vor-OP oder Vor-IV > 0 |

| | | | | |
|---|---|---|---|---|
| | | | | ist |

**Seite Prozedur**

| Operation (OP) / Intervention (INT) / Hybridtherapie (Hybrid) | | | Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|---|---|---|
| OP | | Hybrid | Fallkategorie | HLM<br>ohne HLM<br>ECMO<br>thorakaler Eingriff<br>VAD-OP mit HLM<br>VAD-OP ohne HLM<br>andere | | | |
| OP | IV | Hybrid | prozedurbezogenes Gewicht | kg (0 - 150) | Abhängigkeit vom Alter des Patienten zum Zeitpunkt des Eingriffs:<br><30 Tage: 0,3 - 10kg<br><1 Jahr: 0,3 - 30kg<br><6 Jahre: 3 - 60kg<br>>6 Jahre: >10kg | Kann von der Aufnahme abweichen | |
| OP | IV | Hybrid | prozedurbezogene Größe | cm (0-259) | Abhängigkeit vom Alter des Patienten zum Zeitpunkt des Eingriffs:<br><30Tage: 25 - 70cm<br><1 Jahr: 30 - 130cm<br><6 Jahre: 50 - 160cm<br>>6 Jahre: >80cm | Kann von der Aufnahme abweichen | |
| OP | IV | Hybrid | Prozedurdatum | dd.mm.yyyy | muss größer/gleich dem Aufnahmedatum sein | | |

| Operation (OP) / Intervention (INT) / Hybridtherapie (Hybrid) | | | Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|---|---|---|
| OP | IV | Hybrid | Entlassung Intensivstation *oder* kein stationärer Aufenthalt in der Intensivstation | dd.mm.yyyy | muss größer/gleich dem Prozedurdatum sein | postprozedurale Entlassung von der Intensivstation<br>Als ITS zählt auch eine Überwachungsstation (Intermediate Care Unit). | |
| | | | Handelt es sich um eine komplikationsbedingte Reintervention?<br>Bei ja -> prozedurbezogene Komplikation | **Katalogauswahl** | | Ja – Eingabe prozedurbezogene Komplikation<br>Siehe Kapitel 3.10 Katalog Komplikation<br><br>Nein – Eingabe der prozedurbezogenen Hauptdiagnose<br>Siehe Kapitel 3.1 Katalog Hauptdiagnoset | Diese Frage erscheint erst an der 2. Prozedurseite, da ein Re-Eingriff zum Aufenthlat in Bezug stehen muss. |
| OP | IV | Hybrid | Prozedurbezogene Komplikation (Eingriffsdiagnose) | **Katalogauswahl**<br>Siehe Kapitel 3.10 Katalog Komplikation | | | |
| OP | IV | Hybrid | allgemeiner kardialer Risikofaktor | **Katalogauswahl**<br>Siehe Kapitel 3.5 Katalog Risikofaktoren kardial | | | |
| OP | IV | Hybrid | Nicht kardialer Risikofaktor | Siehe Kapitel 3.6 Katalog Risikofaktoren nichtz kardial | | | |
| Op | | Hybrid | primäre Operation | **Katalogauswahl**<br>Siehe Kapitel 3.7 Katalog Operation | | | |
| Op | | Hybrid | Zusätzliche Operation(en) während des selben Eingriffs | **Katalogauswahl**<br>Siehe Kapitel 3.7 Katalog Operation | | | |

| Operation (OP) / Intervention (INT) / Hybrid-therapie (Hybrid) | | | Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|---|---|---|
| Op | | Hybrid | Prozedurzeit (Schnitt-Nahtzeit) | In Minuten, max 999 / unbekannt | Wert muss im vorgegebenen Bereich liegen | Prozedurzeit (Schnitt-Nahtzeit) | |
| Op | | Hybrid | Extrakorporale Zirkulationszeit | In Minuten, max 999 / unbekannt | Wert muss im vorgegebenen Bereich liegen | Beinhaltet nicht die Stillstandszeit. Gesamte Zeit von Aufnahme bis zur Beendigung der Extrakorporale Zirkulationszeit einer OP. | |
| OP | | Hybrid | Aortale Abklemmzeit mit koronarer Ischämiezeit | In Minuten, max 999 / unbekannt | Wert muss im vorgegebenen Bereich liegen | Gesamte Zeit, inder die Koronararterien nict kontinuierlich durchblutet werden. | |
| OP | | Hybrid | Kreislaufstillstandszeit | In Minuten, max 999 / unbekannt | Wert muss im vorgegebenen Bereich liegen | Die Zeit, in der die extrakorporale Zirkulation komplett steht und kein Eigenkreislauf besteht. | |
| OP | | Hybrid | Isolierte Hirnperfusion | ja / nein / unbekannt | | | |

| Operation (OP) | Intervention (INT) | Hybrid-therapie (Hybrid) | Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|---|---|---|
| OP | | Hybrid | Isolierte Hirnperfusionszeit | In Minuten, max 999 / unbekannt | Wert muss im vorgegebenen Bereich liegen | Die Zeit, in der über ein oder mehrere Kopfgefäße der Kopf bzw. die obere Körperhälfte isoliert (d.h. Körperperfusion) perfundiert wird. Sie zählt nicht zum Kreislaufstillstand. | |
| OP | | Hybrid | Chirurg | Kürzel bsteht aus zwei Zahlen | Wert muss im vorgegebenen Bereich liegen | Der die Prozedur verantwortlich durchführende Operatteur. | Anonym über einen klinikinternen Zahlenschlüssel. |
| OP | | Hybrid | Minimal invasiver Eingriff | ja / nein / unbekannt | | | |
| Op | | Hybrid | Temperaturüberwachung | Blase<br>Ösophagus<br>Nasopharyneal<br>Rectal<br>Tympanic<br>Andere<br>unbekannt | | | |
| Op | | Hybrid | Niedrigste Kern-Temperatur | Grad Celsius, 18,0-37 / unbekannt | Wert muss im vorgegebenen Bereich liegen | | |
| Op | | Hybrid | Nah-Infrarot Spektoskopie | ja/nein/unbekannt | | | |

| Operation (OP) / Intervention (INT) / Hybrid-therapie (Hybrid) | | | Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|---|---|---|
| | | Hybrid | Hybridtherapie | **Katalogauswahl** Siehe Kapitel 3.9 Katalog Hybridtherapie | | | |
| | INT | Hybrid | primäre Intervention | **Katalogauswahl** Siehe Kapitel 3.8 Katalog Intervention | | | |
| | INT | Hybrid | Zusäzliche Interventionen(en) während des selben Eingriffs | **Katalogauswahl** Siehe Kapitel 3.8 Katalog Intervention | | | Hinweis bei 12.45.28: Der Code ist zu ungenau. Bitte genauer dokumentieren. |
| | | | | | | | |
| | INT | Hybrid | Prozedurzeit (Gefäßpunktion-Schleuse gezogen) | in Minuten, max 999 /unbekannt | Wert muss im vorgegebenen Bereich liegen | Als Beginn zählt der Zeitpunkt der ersten Gefäßpunktion, Ende ist die Entfernung derletzen Schleuse, oder falls Schleuse belassen wird, zeitpunkt der Umgebung. | |
| | INT | Hybrid | Durchleuchtungszeit | in Minuten, max 999 /unbekannt | Wert muss im vorgegebenen Bereich liegen | Wenn eine Surchleuchtungszeit angegeben ist, muss der Wert über 0 sein. | |
| | INT | Hybrid | Strahlendosis | Einheit frei wählbar. Max 500 $Gy*cm^{2/}$ unbekannt | Wert muss im vorgegebenen Bereich liegen | Ist keine Durchleuchtungszeit angegebn, wird Strahelndosis ausgeblendet. | |
| | INT | Hybrid | Interventionalist | Kürzel, bestehend aus zwei Zahlen | Wert muss im vorgegebenen Bereich liegen | Für die Prozedur verantwortlich durchführende Interventionalist. Anonym über einen klliniinternen Zahlenschlüssel. | |

| Operation (OP) | Intervention (INT) | Hybridt-herapie (Hybrid) | Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext |
|---|---|---|---|---|---|---|
| | INT | Hybrid | Intubationsnarkose durchgeführt? | ja/nein/unbekannt | | Narkose mit Bearmug |
| | INT | Hybrid | Anästhesist anwesend? | ja/nein/unbekannt | | Ist ein Arzt der Anästehsieabteilung anwesend?<br>(Qualifikation unbedeutend) |
| | INT | Hybrid | unerwünschtes Anesthesie-Ereignis | **Katalogauswahl**<br>Siehe Kapitel 3.10 Katalog Komplikation | | |
| OP | INT | Hybrid | Eingriffsraum | Allgemein OP-Saal<br>CVICU CardioVascular Intensive Care Unit)<br>Herz-OP-Saal<br>Hybrid-Eingriffsraum<br>ICU (Intensib´ve Care Unit)<br>Katheterlabor<br>NICU (Neonatal Intensive Care Unit)<br>PICU (Pediatric Intensive Care Unit)<br>Prozedurraum<br>Radiologischer Behandlungsraum<br>SICU ( Surgical Intensive Care Unit)<br>Andere<br>unbekannt | Vorbelegt für Intervention: Katheterlabor<br>Operation: Herz-OP-Saal | |
| OP | INT | Hybrid | Wurden Blutprodukte während der Operation oder Intervention gegeben? | ja/nein/unbekannt | | |
| OP | INT | Hybrid | TEE | ja/nein/unbekannt | | |

| Operation (OP) / Intervention (INT) / Hybridt-herapie (Hybrid) | | | Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext |
|---|---|---|---|---|---|---|
| OP | INT | Hybrid | Komplikation bei Operation oder Intervention? | **Katalogauswahl** Siehe Kapitel 3.10 Katalog Kompliaktion | Mit Angabe des Schweregrades: Pflichtfeld für Prozeduren ab 01.01.2015. | |
| | INT | Hybrid | Bergersen Score | **Katalogauswahl** Siehe Kapitel 3.11 Katalog Bergersen Risiko Kategorien | Nur sichtbar und Pflichtfelder, wenn das Prozedurdatum ab 01.01.2014 ist | Risikoadjustierung nach Bergersen |

## Seite Entlassung

| Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|
| Entlassungsdatum | dd.mm.yyyy | muss größer/gleich dem Aufnahmedatum sein | | |
| Hauptdiagnose | Anzeige der HD aus QS-Allgemein | | Zeigt die im QS-Allgemein Formular festgelegte Primärdiagnose. | |
| Beatmungsdauer | in Stunden, max.9999 / unbekannt | Wert muss im vorgegeben Bereich liegen | Ist die Zeit, die ein Patient mit intermittierendem Druck beatmet wird. | |
| gesamter Aufenthalt Intensivstation [in Tagen] | max. 999 | Wert muss im vorgegeben Bereich liegen | Die Anzahl bezieht sich nur auf die eigene Klinik pro Aufenthalt. | |
| Gab es ein sehr seltenes, schwerwiegendes Ereignis (Sentinel Events)? | ja/nein | | Bei ja → sentinel event - Details | |
| sentinel event - Details | Freitextfeld | | | |
| Entlassungsart | Entlassung nach Hause<br>andere Akut-Klinik<br>Reha-Klinik<br>verstorben | | | |
| falls verstorben, Todesursache kardial? | ja/nein/unbekannt | | | |
| falls verstorben, Entlassungsart: verstorben | dd.mm.yyyy | muss gleich dem Entlassdatum sein | | |

## 2. 3 Formular QS-Nachkontrolle

| Item | Wert | vorhandene Plausibilität | vorhandener Hilfstext | weitere Information für den Benutzer |
|---|---|---|---|---|
| Patient lebt? | ja/nein | | Ist der Patient nicht erreichbar oder nicht mehr erschienen? Bitte schreiben Sie eine E-Mail an den QS-Support. | |
| Patient lebt - Datum der Nachkontrolle | dd.mm.yyyy | muss größer/gleich dem Geburtsdatum sein, darf nicht in der Zukunft liegen | | |
| Patient lebt - Erneute Intervention/Operation erforderlich? | nein/ja-geplant/ja-ungeplant | | | |
| Patient lebt - Grund der Wiederaufnahme innerhalb von 30 Tagen | Katalog | | | |
| Patient verstorben - Todesdatum | dd.mm.yyyy | muss größer/gleich Geburtsdatum sein, darf nicht in der Zukunft liegen | | |
| Patient verstorben - Todesursache kardial? | ja/nein/unbekannt | | | |

# Kapitel 3: Hinterlegte Kataloge zu den Eingabefeldern

## 3.1 Hauptdiagnose

| Teilkatalog | Hauptdiagnose | IPCCC |
|---|---|---|
| **ASD** | | |
| **ASD** | Patent foramen ovale (PFO) | 05.03.01 |
| **ASD** | Atrial septal defect (ASD) within oval fossa (secundum) | 05.04.02 |
| **ASD** | Sinus venosus defect (ASD) | 05.05.00 |
| **ASD** | Common atrium (virtual absence of atrial septum) | 05.06.01 |
| **ASD** | Interatrial communication (ASD) through coronary sinus orifice | 05.05.03 |
| **VSD** | | |
| **VSD** | Multiple ventricular septal defect (VSD)s | 07.15.04 |
| **VSD** | Perimembranous ventricular septal defect (VSD) | 07.10.01 |
| **VSD** | Inlet ventricular septal defect (VSD) | 07.14.05 |
| **VSD** | Muscular ventricular septal defect (VSD) | 07.11.01 |
| **VSD** | Subarterial ventricular septal defect (VSD) | 07.12.00 |
| **VSD** | Communication between left ventricle + right atrium (Gerbode defect) | 07.14.02 |
| **VSD** | Ventricular septal defect (VSD) + malaligned outlet septum | 07.10.12 |
| **VSD** | Doubly committed subarterial ventricular septal defect (VSD) | 07.12.01 |
| **AVSD** | | |
| **AVSD** | Atrioventricular septal defect (AVSD): isolated atrial component (primum ASD)(partial) | 06.06.01 |
| **AVSD** | Atrioventricular septal defect (AVSD): atrial & ventricular components with common atrioventricular orifice (complete) | 06.06.09 |
| **AVSD** | Atrioventricular septal defect (AVSD): atrial & (restrictive) ventricular components + separate atrioventricular valve orifices ('intermediate') | 06.06.10 |
| **AVSD** | Atrioventricular septal defect (AVSD): isolated ventricular component | 06.06.08 |
| **TAC, HemiTruncus** | | |
| **TAC, HemiTruncus** | Common arterial trunk (truncus arteriosus) | 09.01.01 |
| **TAC, HemiTruncus** | Pulmonary artery from ascending aorta (hemitruncus) | 09.09.08 |
| **Pulmonalvene** | | |
| **Pulmonalvene** | Partially anomalous pulmonary venous connection(s) | 04.07.01 |
| **Pulmonalvene** | Pulmonary vein stenosis | 04.08.91 |
| **Pulmonalvene** | Totally anomalous pulmonary venous connection: supracardiac | 04.06.00 |
| **Pulmonalvene** | Totally anomalous pulmonary venous connection: intracardiac | 04.08.10 |
| **Pulmonalvene** | Totally anomalous pulmonary venous connection: infracardiac | 04.08.20 |
| **Pulmonalvene** | Totally anomalous pulmonary venous connection: mixed | 04.08.30 |
| **Pulmonalvene** | Partially anomalous pulmonary venous connection: Scimitar syndrome | 01.01.16 |
| **Pulmonalvene** | Cor triatriatum (divided left atrium) | 05.02.01 |
| **Systemvenen** | | |
| **Systemvenen** | Systemic vein abnormality: congenital | 04.05.00 |
| **Systemvenen** | Systemic vein obstruction | 10.30.09 |
| **Systemvenen** | Inferior caval vein (IVC) interruption (absent suprarenal segment) with azygos continuation | 04.03.10 |
| **Systemvenen** | Systemic venovenous collateral(s) | 04.00.06 |
| **RVOT - Obstruction inkl. PA** | | |

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|---|---|---|
| **RVOT - Obstruction inkl. PA** | Tetralogy of Fallot | 01.01.01 |
| **RVOT - Obstruction inkl. PA** | Atrioventricular septal defect and Tetralogy of Fallot | 01.01.20 |
| **RVOT - Obstruction inkl. PA** | Pulmonary atresia | 09.05.11 |
| **RVOT - Obstruction inkl. PA** | Absent pulmonary valve syndrome: Fallot-type | 09.05.25 |
| **RVOT - Obstruction inkl. PA** | Pulmonary atresia + intact ventricular septum | 01.01.07 |
| **RVOT - Obstruction inkl. PA** | Pulmonary atresia + ventricular septal defect (VSD) (including Fallot type) | 01.01.06 |
| **RVOT - Obstruction inkl. PA** | Pulmonary atresia + ventricular septal defect (VSD) + systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) | 01.01.25 |
| **RVOT - Obstruction inkl. PA** | Pulmonary atresia: imperforate valve | 09.05.12 |
| **Trikuspidalfehler** | | |
| **Trikuspidalfehler** | Ebstein's malformation of tricuspid valve | 06.01.34 |
| **Trikuspidalfehler** | Tricuspid stenosis | 06.01.92 |
| **Trikuspidalfehler** | Tricuspid regurgitation | 06.01.91 |
| **Trikuspidalfehler** | Tricuspid regurgitation: congenital | 06.01.25 |
| **RVOT, PK** | | |
| **RVOT, PK** | Subpulmonary stenosis | 07.05.30 |
| **RVOT, PK** | Double chambered right ventricle | 07.03.01 |
| **RVOT, PK** | Pulmonary valvar stenosis | 09.05.01 |
| **RVOT, PK** | Pulmonary regurgitation | 09.05.91 |
| **RVOT, PK** | Pulmonary valvar stenosis: congenital | 09.05.04 |
| **RVOT, PK** | Pulmonary regurgitation: congenital | 09.05.22 |
| **Aortenklappe** | | |
| **Aortenklappe** | Subaortic stenosis | 07.09.00 |
| **Aortenklappe** | Supravalvar aortic stenosis | 09.16.00 |
| **Aortenklappe** | Aortic sinus of Valsalva aneurysm | 09.18.01 |
| **Aortenklappe** | Aorto: left ventricular tunnel | 09.17.02 |
| **Aortenklappe** | Aortic valvar stenosis | 09.15.13 |
| **Aortenklappe** | Aortic regurgitation | 09.15.91 |
| **Aortenklappe** | Subaortic stenosis due to fibromuscular shelf | 07.09.03 |
| **Aortenklappe** | Aortic valvar stenosis: congenital | 09.15.01 |
| **Aortenklappe** | Aortic regurgitation: congenital | 09.15.07 |
| **Mitralklappe** | | |
| **Mitralklappe** | Mitral stenosis | 06.02.92 |
| **Mitralklappe** | Mitral regurgitation | 06.02.91 |
| **Mitralklappe** | Supravalvar mitral ring | 05.02.02 |
| **Mitralklappe** | Mitral valve stenosis | 06.02.93 |
| **Mitralklappe** | Mitral subvalvar stenosis | 06.02.13 |
| **Mitralklappe** | Parachute malformation of mitral valve | 06.02.56 |
| **Mitralklappe** | Mitral regurgitation: congenital | 06.02.25 |
| **Mitralklappe** | Mitral valvar stenosis: congenital | 06.02.07 |
| **Myokarderkrankungen** | | |

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|---|---|---|
| **Myokarderkrankungen** | Cardiomyopathy | 10.10.01 |
| **Myokarderkrankungen** | Hypertrophic cardiomyopathy | 10.10.20 |
| **Myokarderkrankungen** | Dilated cardiomyopathy | 10.10.25 |
| **Myokarderkrankungen** | Arrhythmogenic right ventricular cardiomyopathy | 07.01.10 |
| **Myokarderkrankungen** | Endocardial fibroelastosis | 10.10.12 |
| **Myokarderkrankungen** | Idiopathic restrictive cardiomyopathy | 10.10.11 |
| **Myokarderkrankungen** | Infiltrative cardiomyopathy | 10.10.13 |
| **Myokarderkrankungen** | Drug induced heart muscle disease | 10.07.05 |
| **Myokarderkrankungen** | Nutritional heart muscle disease | 10.07.61 |
| **Myokarderkrankungen** | Heart muscle disease in collagen vascular/ connective tissue disorder, | 10.07.81 |
| **Myokarderkrankungen** | Infectious myocarditis | 10.07.01 |
| **Myokarderkrankungen** | Viral myocarditis | 10.07.03 |
| **Myokarderkrankungen** | Bacterial myocarditis | 10.07.04 |
| **Perikarderkrankung** | | |
| **Perikarderkrankung** | Pericardial effusion | 10.08.31 |
| **Perikarderkrankung** | Pericarditis | 10.08.00 |
| **Single Ventricle** | | |
| **Single Ventricle** | Hypoplastic left heart syndrome | 01.01.09 |
| **Single Ventricle** | Functionally univentricular heart | 01.01.22 |
| **Single Ventricle** | Double inlet right ventricle | 01.04.03 |
| **Single Ventricle** | Double inlet left ventricle | 01.04.04 |
| **Single Ventricle** | Tricuspid atresia | 06.01.01 |
| **Single Ventricle** | Mitral atresia | 06.02.01 |
| **Single Ventricle** | Atrioventricular septal defect (AVSD) with ventricular imbalance | 06.07.26 |
| **Single Ventricle** | Aortic atresia | 09.15.03 |
| **Transposition** | | |
| **Transposition** | Congenitally corrected transposition of great arteries (discordant atrioventricular & ventriculo-arterial connections) | 01.01.03 |
| **Transposition** | Discordant VA connections (TGA) | 01.05.01 |
| **Transposition** | Transposition of great arteries (TGA) (concordant atrioventricular & discordant ventriculo-arterial connections) & intact ventricular septum, | 01.01.02 |
| **Double Outlet Ventricle** | | |
| **Double Outlet Ventricle** | Double outlet right ventricle: Fallot type (subaortic or doubly committed ventricular septal defect & pulmonary stenosis) | 01.01.17 |
| **Double Outlet Ventricle** | Double outlet right ventricle: transposition type (subpulmonary ventricular septal defect) | 01.01.18 |
| **Double Outlet Ventricle** | Double outlet right ventricle: with non-committed ventricular septal defect | 01.01.19 |
| **Double Outlet Ventricle** | Double outlet left ventricle | 01.05.03 |
| **Double Outlet Ventricle** | Double outlet right ventricle: subaortic or doubly committed ventricular septal defect without pulmonary stenosis ('VSD type') | 01.01.40 |
| **Double Outlet Ventricle** | Double outlet right ventricle: with intact ventricular septum | 01.01.24 |
| **Pulmonalarterie** | | |
| **Pulmonalarterie** | Central pulmonary arterial stenosis: proximal to hilar bifurcation | 09.10.07 |
| **Pulmonalarterie** | Peripheral pulmonary arterial stenoses: at-beyond hilar bifurcation | 09.10.06 |
| **Pulmonalarterie** | Supravalvar pulmonary trunk stenosis | 09.07.13 |

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| **Pulmonalarterie** | Pulmonary trunk hypoplasia | 09.07.11 |
| **Pulmonalarterie** | Discontinuous (non-confluent) pulmonary arteries | 09.10.10 |
| **Pulmonalarterie** | Pulmonary arterial aneurysm | 09.10.44 |
| **Pulmonalarterie** | Pulmonary arterial hypoplasia | 09.10.11 |
| **Thorakale Gefäße** | | |
| **Thorakale Gefäße** | Aortic coarctation | 09.29.01 |
| **Thorakale Gefäße** | Aortic arch hypoplasia (tubular) | 09.29.11 |
| **Thorakale Gefäße** | Interrupted aortic arch | 09.29.31 |
| **Thorakale Gefäße** | Patent arterial duct (PDA) | 09.27.21 |
| **Thorakale Gefäße** | Vascular ring | 09.31.00 |
| **Thorakale Gefäße** | Pulmonary arterial sling | 09.09.06 |
| **Thorakale Gefäße** | Aortic aneurysm | 10.14.50 |
| **Thorakale Gefäße** | Aortic dissection | 10.14.51 |
| **Thorakale Gefäße** | Aorto-ventricular tunnel | 09.17.01 |
| **Thorakale Gefäße** | Double aortic arch | 09.28.09 |
| **Thorakale Gefäße** | Aortopulmonary window | 09.04.01 |
| **Coronarien** | | |
| **Coronarien** | Anomalous origin of coronary artery from pulmonary artery | 09.41.01 |
| **Coronarien** | Coronary fistula | 09.45.01 |
| **Coronarien** | Coronary artery: anomalous aortic origin or course | 09.42.00 |
| **Coronarien** | Coronary arterial aneurysm(s) | 09.46.01 |
| **Coronarien** | Coronary arterial abnormality | 09.46.00 |
| **Arrhythmie** | | |
| **Arrhythmie** | Sinus bradycardia | 11.02.04 |
| **Arrhythmie** | Supraventricular rhythm disturbance | 11.01.01 |
| **Arrhythmie** | Supraventricular tachycardia | 11.01.00 |
| **Arrhythmie** | Focal atrial tachycardia: ectopic (automatic) | 11.03.12 |
| **Arrhythmie** | Sinus node dysfunction (including sick sinus) | 11.02.03 |
| **Arrhythmie** | Premature atrial beats (complexes-contractions) | 11.03.21 |
| **Arrhythmie** | Atrial flutter | 11.03.07 |
| **Arrhythmie** | Atrial fibrillation | 11.03.08 |
| **Arrhythmie** | Paroxysmal atrial tachycardia | 11.03.05 |
| **Arrhythmie** | Rhythm disturbance at level of AV junction | 11.04.00 |
| **Arrhythmie** | Atrioventricular junctional (nodal) tachycardia | 11.04.07 |
| **Arrhythmie** | Atrioventricular nodal reentry tachycardia (AVNRT) | 11.04.11 |
| **Arrhythmie** | Junctional ectopic tachycardia (His bundle): post-op | 11.04.12 |
| **Arrhythmie** | Manifest accessory pathway | 11.07.11 |
| **Arrhythmie** | AV reciprocating (reentry) tachycardia: manifest preexcitation in sinus rhythm (Wolff Parkinson White) | 11.07.01 |
| **Arrhythmie** | Accessory pathway: retrograde conduction only (concealed: no preexcitation sinus rhythm) | 11.07.06 |
| **Arrhythmie** | AV reciprocating (reentry) tachycardia: orthodromic | 11.07.22 |
| **Arrhythmie** | AV reentry (reciprocating) tachycardia: antidromic (typically wide QRS) | 11.07.23 |
| **Arrhythmie** | Permanent junctional reciprocating tachycardia (PJRT) | 11.07.14 |
| **Arrhythmie** | Ventricular rhythm disturbance | 11.05.00 |
| **Arrhythmie** | Ventricular tachycardia | 11.05.06 |

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|---|---|---|
| **Arrhythmie** | Non-sustained ventricular tachycardia | 11.05.50 |
| **Arrhythmie** | Ventricular flutter | 11.05.09 |
| **Arrhythmie** | Ventricular fibrillation | 11.05.10 |
| **Arrhythmie** | Premature ventricular beats (complexes-contractions) | 11.05.21 |
| **Arrhythmie** | Conduction disturbance | 11.06.00 |
| **Arrhythmie** | Sinoatrial block | 11.06.01 |
| **Arrhythmie** | 1st degree atrioventricular block | 11.06.02 |
| **Arrhythmie** | 2nd degree atrioventricular block | 11.06.03 |
| **Arrhythmie** | Complete atrioventricular block (3rd degree) | 11.06.07 |
| **Arrhythmie** | Congenital complete heart block | 11.06.16 |
| **Arrhythmie** | Acquired complete atrioventricular block | 11.06.10 |
| **Arrhythmie** | Complete right bundle branch block | 11.06.23 |
| **Arrhythmie** | Complete left bundle branch block | 11.06.24 |
| **Arrhythmie** | Prolonged QT interval | 11.12.01 |
| **Ventrikelaneurysmata** | | |
| **Ventrikelaneurysmata** | Right ventricular aneurysm | 07.01.14 |
| **Ventrikelaneurysmata** | Left ventricular aneurysm | 07.06.13 |
| **Erworbene Erkrankungen** | | |
| **Erworbene Erkrankungen** | Rheumatic fever with cardiac involvement | 10.05.21 |
| **Erworbene Erkrankungen** | Rheumatic valvar disease | 10.05.30 |
| **Erworbene Erkrankungen** | Infectious pericarditis | 10.08.01 |
| **Erworbene Erkrankungen** | Viral pericarditis | 10.08.03 |
| **Erworbene Erkrankungen** | Bacterial pericarditis | 10.08.04 |
| **Erworbene Erkrankungen** | Kawasaki disease with aneurysm(s) or dilated coronary vessels | 10.09.02 |
| **Erworbene Erkrankungen** | Myocardial infarction | 10.18.00 |
| **Erworbene Erkrankungen** | Acute myocardial infarction | 10.18.01 |
| **Erworbene Erkrankungen** | Heart tumour | 10.03.01 |
| **Erworbene Erkrankungen** | Primary pulmonary hypertension | 10.13.02 |
| **Erworbene Erkrankungen** | Heart muscle disease in cardiac rejection | 10.07.42 |
| **AV-Shunt** | | |
| **AV-Shunt** | Pulmonary arteriovenous fistula | 09.19.05 |
| **AV-Shunt** | Arteriovenous fistula | 09.19.01 |
| **Thorakale und mediastinale Erkrankungen** | | |
| **Thorakale und mediastinale Erkrankungen** | Pectus carinatum | 14.04.04 |
| **Thorakale und** | Pectus excavatum | 14.04.05 |

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|---|---|---|
| **mediastinale Erkrankungen** | | |
| **Thorakale Gefäße und Aortic Syndrome** | | |
| **Thorakale Gefäße und Aortic Syndrome** | Descending-abdominal aorta hypoplasia (mid aortic syndrome) | 09.29.16 |

## 3.2 Kardiale Nebendiagnose

| **kardiale Nebendiagnose** | **IPCCC** |
|---|---|
| NONE | NONE |
| **Venen** | |
| Superior caval vein (SVC) abnormality | 04.01.00 |
| Left superior caval vein (SVC) persisting to coronary sinus | 04.01.01 |
| Inferior caval vein (IVC) abnormality | 04.03.00 |
| Inferior caval vein (IVC) interruption (absent suprarenal segment) with azygos continuation | 04.03.10 |
| Hepatic vein abnormality | 04.02.00 |
| Systemic vein abnormality: congenital | 04.05.00 |
| Systemic venovenous collateral(s) | 04.00.06 |
| Pulmonary vein abnormality | 04.08.00 |
| Pulmonary vein stenosis | 04.08.91 |
| Totally anomalous pulmonary venous connection | 04.08.05 |
| Totally anomalous pulmonary venous connection: supracardiac | 04.06.00 |
| Totally anomalous pulmonary venous connection: intracardiac | 04.08.10 |
| Totally anomalous pulmonary venous connection: infracardiac | 04.08.20 |
| Totally anomalous pulmonary venous connection: mixed | 04.08.30 |
| Partially anomalous pulmonary venous connection(s) | 04.07.01 |
| Partially anomalous pulmonary venous connection: Scimitar syndrome | 01.01.16 |
| Obstructed pulmonary venous connection(s) | 04.08.06 |
| Coronary sinus abnormality | 04.04.00 |
| Systemic vein abnormality: acquired | 10.30.00 |
| Systemic vein obstruction | 10.30.09 |
| Superior caval vein (SVC) abnormality: acquired | 10.31.01 |
| Postprocedural superior caval vein (SVC) complication | 15.04.01 |
| Inferior caval vein (IVC) abnormality - acquired | 10.31.21 |
| Postprocedural inferior caval vein (IVC) complication | 15.04.05 |
| Pulmonary venous abnormality: acquired | 10.24.00 |
| Postprocedural pulmonary vein complication | 15.05.01 |
| Pulmonary vein obstruction | 15.05.03 |
| Postprocedural major vein complication | 15.04.34 |
| Postprocedural femoral vein complication | 15.04.15 |
| **Vorhöfe** | |
| Right atrial abnormality | 05.01.00 |
| Left atrial abnormality | 05.02.00 |
| Cor triatriatum (divided left atrium) | 05.02.01 |
| Intact atrial septum (no interatrial communication) | 05.03.10 |

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|---|---|
| Atrial septum abnormality | 05.03.00 |
| Patent foramen ovale (PFO) | 05.03.01 |
| Atrial septal defect (ASD) within oval fossa (secundum) | 05.04.02 |
| Spontaneous closure of atrial septal defect (ASD) within oval fossa (secundum) | 05.04.03 |
| Sinus venosus defect (ASD) | 05.05.00 |
| Common atrium (virtual absence of atrial septum) | 05.06.01 |
| Interatrial communication (ASD) through coronary sinus orifice | 05.05.03 |
| Left atrial abnormality: acquired | 15.10.20 |
| Right atrial abnormality: acquired | 15.10.10 |
| Postprocedural right atrial complication | 15.10.11 |
| Postprocedural left atrial complication | 15.10.21 |
| Obstruction of right atrial conduit (including total cavopulmonary connection) | 15.10.13 |
| Atrial septum abnormality: acquired | 10.17.40 |
| Postprocedural atrial septum complication | 15.10.61 |
| Residual interatrial communication ('ASD') | 15.10.63 |
| Ineffective balloon atrial septostomy | 15.10.66 |
| **av-Klappen und AVSD** | |
| Tricuspid atresia | 06.01.01 |
| Tricuspid valvar abnormality | 06.01.00 |
| Tricuspid regurgitation | 06.01.91 |
| Tricuspid regurgitation: congenital | 06.01.25 |
| Tricuspid valvar dysplasia | 06.01.03 |
| Straddling tricuspid valve | 06.01.09 |
| Ebstein's malformation of tricuspid valve | 06.01.34 |
| Tricuspid stenosis | 06.01.92 |
| Mitral atresia | 06.02.01 |
| Mitral stenosis | 06.02.92 |
| Mitral valvar abnormality | 06.02.00 |
| Mitral regurgitation | 06.02.91 |
| Mitral regurgitation: congenital | 06.02.25 |
| Straddling mitral valve | 06.02.09 |
| Supravalvar mitral ring | 05.02.02 |
| Mitral valvar prolapse | 06.02.35 |
| True cleft of mitral leaflet (without atrioventricular septal defect) | 06.02.36 |
| Mitral valve stenosis | 06.02.93 |
| Mitral valvar stenosis: congenital | 06.02.07 |
| Mitral subvalvar apparatus abnormality | 06.02.12 |
| Mitral subvalvar stenosis | 06.02.13 |
| Parachute malformation of mitral valve | 06.02.56 |
| Atrioventricular septal defect (AVSD) | 06.06.00 |
| Atrioventricular septal defect (AVSD): isolated atrial component (primum ASD)(partial) | 06.06.01 |
| Atrioventricular septal defect (AVSD): isolated ventricular component | 06.06.08 |
| Atrioventricular septal defect (AVSD): atrial and (restrictive) ventricular components + separate atrioventricular valve orifices ('intermediate') | 06.06.10 |
| Atrioventricular septal defect (AVSD) atrioventricular valvar abnormality | 06.05.01 |
| Atrioventricular septal defect (AVSD) atrioventricular valvar regurgitation | 06.05.06 |

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|---|---|
| Tricuspid valvar abnormality: acquired | 10.32.01 |
| Postprocedural tricuspid valvar complication | 15.11.00 |
| Residual tricuspid regurgitation | 15.11.03 |
| Tricuspid valvar prosthesis complication | 15.11.08 |
| Mitral valvar abnormality: acquired | 10.33.01 |
| Mitral stenosis: acquired | 10.33.02 |
| Mitral valvar stenosis: recurrent | 10.33.03 |
| Mitral regurgitation: acquired | 10.33.04 |
| Mitral regurgitation: recurrent | 10.33.06 |
| Postprocedural mitral valvar complication | 15.12.00 |
| Residual mitral valvar stenosis | 15.12.01 |
| Residual mitral regurgitation | 15.12.03 |
| Mitral valvar prosthesis complication | 15.12.09 |
| Postprocedural atrioventricular septal defect complication | 15.16.00 |
| Residual ventricular component of atrioventricular septal defect | 15.16.02 |
| Atrioventricular valvar abnormality in atrioventricular septal defect (AVSD): acquired | 10.34.60 |
| Left atrioventricular valvar regurgitation: acquired | 10.34.44 |
| Residual common atrioventricular valvar regurgitation | 15.13.02 |
| Postprocedural right atrioventricular valvar complication | 15.14.00 |
| Postprocedural left atrioventricular valvar complication | 15.15.00 |
| **Ventrikel und Ventrikelseptum** | |
| Ventricular imbalance: dominant left ventricle + hypoplastic right ventricle | 07.08.41 |
| Ventricular imbalance: dominant right ventricle + hypoplastic left ventricle | 07.08.42 |
| Right ventricular abnormality | 07.01.00 |
| Right ventricular aneurysm | 07.01.14 |
| Right ventricular hypoplasia | 07.02.00 |
| Double chambered right ventricle | 07.03.01 |
| Right ventricular outflow tract obstruction | 07.05.01 |
| Left ventricular abnormality | 07.06.00 |
| Left ventricular hypoplasia | 07.07.00 |
| Left ventricular aneurysm | 07.06.13 |
| Left ventricular outflow tract obstruction | 07.09.01 |
| Shone's syndrome: left heart obstruction at multiple sites | 01.01.33 |
| Intact ventricular septum | 07.21.00 |
| Ventricular septal defect (VSD) | 07.10.00 |
| Single ventricular septal defect (VSD) | 07.15.05 |
| Multiple ventricular septal defect (VSD)s | 07.15.04 |
| Perimembranous ventricular septal defect (VSD) | 07.10.01 |
| Ventricular septal defect (VSD) + malaligned outlet septum | 07.10.12 |
| Inlet ventricular septal defect (VSD) | 07.14.05 |
| Muscular ventricular septal defect (VSD) | 07.11.01 |
| Subarterial ventricular septal defect (VSD) | 07.12.00 |
| Doubly committed subarterial ventricular septal defect (VSD) | 07.12.01 |
| Communication between left ventricle + right atrium (Gerbode defect) | 07.14.02 |
| Spontaneous closure of ventricular septal defect (VSD) | 07.16.01 |

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|---|---|
| Ventricular septal abnormality | 07.20.00 |
| Aneurysm of membranous septum | 07.20.01 |
| Right ventricular abnormality: acquired | 10.16.00 |
| Right ventricular dysfunction | 07.01.11 |
| Right ventricular-congestive heart failure | 10.16.08 |
| Postprocedural right ventricular complication | 15.20.01 |
| Postprocedural right ventricular outflow tract complication | 15.20.21 |
| Right ventricular outflow tract obstruction: acquired | 10.16.16 |
| Aneurysm of right ventricular outflow tract patch | 15.20.25 |
| Residual right ventricular outflow tract obstruction | 15.20.23 |
| Left ventricular abnormality: acquired | 10.16.40 |
| Left ventricular dysfunction | 07.06.10 |
| Left ventricular failure | 10.16.47 |
| Ventricular dyssynchrony | 07.00.01 |
| Postprocedural left ventricular complication | 15.21.01 |
| Postprocedural left ventricular outflow tract complication | 15.21.21 |
| Recurrent left ventricular outflow tract obstruction | 10.16.46 |
| Residual left ventricular outflow tract obstruction | 15.21.22 |
| Narrowing of constructed intraventricular tunnel: acquired | 10.16.81 |
| Abnormality associated with acquired ventricular septum defect | 10.16.60 |
| Postmyocardial infarct ventricular septal defect (VSD) | 10.16.62 |
| Residual ventricular septal defect (VSD) | 15.22.02 |
| Myocardial failure in end stage congenital heart disease | 10.07.40 |
| Cardiomyopathy | 10.10.01 |
| Ventricular myocardial noncompaction cardiomyopathy | 07.08.50 |
| Hypertrophic cardiomyopathy | 10.10.20 |
| Dilated cardiomyopathy | 10.10.25 |
| Arrhythmogenic right ventricular cardiomyopathy | 07.01.10 |
| Endocardial fibroelastosis | 10.10.12 |
| Idiopathic restrictive cardiomyopathy | 10.10.11 |
| Infiltrative cardiomyopathy | 10.10.13 |
| Drug induced heart muscle disease | 10.07.05 |
| Nutritional heart muscle disease | 10.07.61 |
| Heart muscle disease in collagen vascular/ connective tissue disorder | 10.07.81 |
| Myocardial infarction | 10.18.00 |
| Acute myocardial infarction | 10.18.01 |
| Postmyocardial infarction complication | 10.18.24 |
| **va-Klappen und große Arterien** | |
| Aortopulmonary window | 09.04.01 |
| Pulmonary artery from ascending aorta (hemitruncus) | 09.09.08 |
| Truncal valvar abnormality | 09.02.00 |
| Truncal valvar regurgitation | 09.02.03 |
| Pulmonary stenosis | 09.05.92 |
| Subpulmonary stenosis | 07.05.30 |
| Pulmonary valvar abnormality | 09.05.00 |

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|---|---|
| Pulmonary valvar stenosis | 09.05.01 |
| Pulmonary valvar stenosis: congenital | 09.05.04 |
| Pulmonary regurgitation | 09.05.91 |
| Pulmonary regurgitation: congenital | 09.05.22 |
| Pulmonary atresia | 09.05.11 |
| Pulmonary atresia: imperforate valve | 09.05.12 |
| Pulmonary trunk (MPA) abnormality | 09.07.00 |
| Supravalvar pulmonary trunk stenosis | 09.07.13 |
| Pulmonary trunk hypoplasia | 09.07.11 |
| Pulmonary arterial abnormality | 09.10.00 |
| Pulmonary arterial stenosis | 09.10.01 |
| Central pulmonary arterial stenosis: proximal to hilar bifurcation | 09.10.07 |
| Peripheral pulmonary arterial stenoses: at-beyond hilar bifurcation | 09.10.06 |
| Right pulmonary arterial stenosis | 09.10.25 |
| Left pulmonary arterial stenosis | 09.10.26 |
| Pulmonary arterial hypoplasia | 09.10.11 |
| Discontinuous (non-confluent) pulmonary arteries | 09.10.10 |
| Pulmonary arterial aneurysm | 09.10.44 |
| Aortic stenosis | 09.15.92 |
| Subaortic stenosis | 07.09.00 |
| Subaortic stenosis due to fibromuscular shelf | 07.09.03 |
| Aortic valvar abnormality | 09.15.00 |
| Aortic valvar stenosis | 09.15.13 |
| Aortic valvar stenosis: congenital | 09.15.01 |
| Eccentric opening of tricuspid aortic valve | 09.15.12 |
| Aortic regurgitation | 09.15.91 |
| Aortic regurgitation: congenital | 09.15.07 |
| Bicuspid aortic valve | 09.15.22 |
| Aortic atresia | 09.15.03 |
| Aortic valvar prolapse | 09.15.30 |
| Aortic abnormality | 07.09.31 |
| Ascending aorta abnormality | 09.16.10 |
| Ascending aorta hypoplasia | 09.16.02 |
| Supravalvar aortic stenosis | 09.16.00 |
| Ascending aorta dilation | 09.16.09 |
| Ascending aorta dilation associated with Marfan syndrome | 09.16.05 |
| Aortic sinus of Valsalva aneurysm | 09.18.01 |
| Aorto-ventricular tunnel | 09.17.01 |
| Aorto: left ventricular tunnel | 09.17.02 |
| Aortic arch abnormality | 09.28.00 |
| Right aortic arch | 09.28.15 |
| Aortic coarctation | 09.29.01 |
| Aortic arch hypoplasia (tubular) | 09.29.11 |
| Interrupted aortic arch | 09.29.31 |
| Aortic arch branch abnormality | 09.30.00 |

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|---|---|
| Aberrant origin right subclavian artery | 09.30.02 |
| Aberrant origin left subclavian artery | 09.30.04 |
| Vascular ring | 09.31.00 |
| Double aortic arch | 09.28.09 |
| Pulmonary arterial sling | 09.09.06 |
| Descending aorta dilation | 09.28.16 |
| Descending-abdominal aorta hypoplasia (middle aortic syndrome) | 09.29.16 |
| Arterial duct (ductus arteriosus) abnormality | 09.27.00 |
| Patent arterial duct (PDA) | 09.27.21 |
| Arteriovenous fistula (malformation) | 09.19.01 |
| Pulmonary arteriovenous fistula (malformation) | 09.19.05 |
| Distal systemic arterial abnormality | 09.20.20 |
| Solitary arterial trunk (absent intrapericardial pulmonary arteries) | 09.07.26 |
| Major systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) | 09.08.01 |
| Systemic-to-pulmonary collateral arter(ies) (MAPCA(s)) stenosis(es) | 09.20.25 |
| Truncal valvar abnormality: acquired | 10.37.01 |
| Residual truncal regurgitation | 15.25.03 |
| Common arterial trunk (truncus) abnormality: acquired | 10.51.01 |
| Postprocedural common arterial trunk complication | 15.25.31 |
| Pulmonary valvar abnormality: acquired | 10.35.01 |
| Pulmonary valvar stenosis: acquired | 10.35.02 |
| Pulmonary valvar stenosis: recurrent | 10.35.03 |
| Pulmonary regurgitation: acquired | 10.35.04 |
| Pulmonary valvar atresia: acquired | 09.05.15 |
| Postprocedural pulmonary valvar complication | 15.30.00 |
| Residual pulmonary valvar stenosis | 15.30.01 |
| Residual pulmonary regurgitation | 15.30.03 |
| Pulmonary valvar prosthesis complication | 15.30.08 |
| Aortic valvar abnormality: acquired | 10.36.01 |
| Aortic valvar stenosis: acquired | 10.36.02 |
| Aortic valvar stenosis: recurrent | 10.36.03 |
| Aortic regurgitation: acquired | 10.36.04 |
| Aortic regurgitation: recurrent | 10.36.06 |
| Postprocedural aortic valvar complication | 15.35.00 |
| Residual aortic valvar stenosis | 15.35.01 |
| Residual aortic regurgitation | 15.35.03 |
| Aortic valvar prosthesis complication | 15.35.08 |
| Prosthetic valve failure | 10.33.00 |
| Subaortic stenosis: acquired | 10.16.86 |
| Subaortic stenosis in complex heart disease: acquired | 10.16.82 |
| Residual subaortic stenosis in complex heart disease | 15.20.75 |
| Subpulmonary stenosis: acquired | 10.16.88 |
| Subpulmonary stenosis in complex heart disease: acquired | 10.16.83 |
| Residual subpulmonary stenosis in complex heart disease | 15.20.76 |
| Heart valvar abnormality: acquired | 10.32.00 |

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|---|---|
| Pulmonary arterial disease: acquired | 10.13.50 |
| Right pulmonary arterial stenosis: acquired | 10.13.68 |
| Left pulmonary arterial stenosis: acquired | 10.13.69 |
| Postprocedural pulmonary trunk complication | 15.32.01 |
| Postprocedural right pulmonary artery complication | 15.32.21 |
| Postprocedural left pulmonary artery complication | 15.32.41 |
| Residual right pulmonary artery stenosis | 15.32.23 |
| Residual left pulmonary artery stenosis | 15.32.43 |
| Pulmonary arterial hypertension | 10.13.01 |
| Primary pulmonary hypertension | 10.13.02 |
| Secondary pulmonary hypertension | 10.13.20 |
| Pulmonary hypertension due to left to right shunt | 10.13.21 |
| Pulmonary vascular disease | 10.13.06 |
| Irreversible pulmonary vascular disease due to congenital heart disease (Eisenmenger Syndrome) | 10.13.08 |
| Pulmonary embolism | 10.13.51 |
| Pulmonary oedema | 10.30.30 |
| Abnormality of aorta: acquired | 10.14.70 |
| Supravalvar aortic stenosis: acquired | 10.14.77 |
| Recoarctation of aorta | 10.14.72 |
| Ascending aorta dilation: acquired | 10.14.40 |
| Ascending aortopathy associated with conotruncal malformations | 10.14.95 |
| Aortic root dilation | 09.16.13 |
| Aortic dissection | 10.14.51 |
| Ascending aorta dissection and propagation beyond arch (DeBakey type I) | 10.14.52 |
| Ascending aorta dissection not beyond arch (DeBakey type II/ Stanford type A) | 10.14.53 |
| Descending aorta dissection and distal propagation (DeBakey type III/ Stanford type B) | 10.14.54 |
| Aortic aneurysm | 10.14.50 |
| Ascending aorta aneurysm | 10.14.42 |
| Descending aorta aneurysm | 10.14.43 |
| Abdominal aorta aneurysm | 10.14.44 |
| Rupture of thoracic aortic aneurysm | 10.14.45 |
| Rupture of abdominal aortic aneurysm | 10.14.46 |
| Postprocedural aortic complication | 15.37.73 |
| Postprocedural ascending aorta complication | 15.36.01 |
| Postprocedural descending aorta complication | 15.37.01 |
| Residual aortic coarctation | 15.37.05 |
| Postprocedural aneurysm of aorta at coarctation site | 15.37.07 |
| Postprocedural systemic arterial complication | 15.24.00 |
| Systemic-to-pulmonary arterial shunt complication | 15.56.00 |
| Systemic-to-pulmonary arterial shunt partial obstruction | 15.56.01 |
| Systemic-to-pulmonary arterial shunt complete obstruction | 15.56.02 |
| Systemic-to-pulmonary arterial shunt failure | 15.56.21 |
| Pulmonary autograft failure | 15.55.24 |
| Arterial duct (ductus arteriosus) abnormality: acquired | 10.14.80 |
| Postprocedural arterial duct complication | 15.39.01 |

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|---|---|
| Residual arterial duct (PDA) patency | 15.39.02 |
| Postprocedural systemic-to-pulmonary collateral artery complication | 15.39.50 |
| **anomale Konnektionen** | |
| Diskordant atrioventricular connections | 01.04.01 |
| Discordant ventriculo-arterial connections (TGA) | 01.05.01 |
| Congenitally corrected transposition of great arteries (discordant atrioventricular and ventriculo-arterial connections) | 01.01.03 |
| Double outlet right ventricle | 01.01.04 |
| Double outlet right ventricle: Fallot type (subaortic or doubly committed ventricular septal defect and pulmonary stenosis) | 01.01.17 |
| Double outlet right ventricle: transposition type (subpulmonary ventricular septal defect) | 01.01.18 |
| Double outlet right ventricle: with non-committed ventricular septal defect | 01.01.19 |
| Double outlet right ventricle: subaortic or doubly committed ventricular septal defect without pulmonary stenosis ('VSD type') | 01.01.40 |
| Double outlet right ventricle: with intact ventricular septum | 01.01.24 |
| Double outlet left ventricle | 01.05.03 |
| **Koronararterien** | |
| Coronary arterial abnormality | 09.46.00 |
| Anomalous origin of coronary artery from pulmonary artery | 09.41.01 |
| Coronary fistula | 09.45.01 |
| Coronary artery: anomalous aortic origin or course | 09.42.00 |
| Aberrant course of coronary artery: across right ventricular outflow tract | 09.43.18 |
| Intramural proximal coronary arterial course | 09.43.05 |
| Coronary arterial aneurysm(s) | 09.46.01 |
| Coronary fistulas from RV ('sinusoidal') | 09.45.11 |
| Right ventricle dependent coronary circulation | 09.46.06 |
| Kawasaki disease with aneurysm(s) or dilated coronary vessels | 10.09.02 |
| Acquired coronary arterial disease | 10.09.10 |
| Ischaemic heart disease | 10.09.30 |
| Postprocedural coronary arterial complication | 15.41.00 |
| Postprocedural coronary artery bypass graft (CABG) complication | 15.41.39 |
| **Rhythmusstörungen und Pacemaker** | |
| Electrocardiographic (ECG) abnormality | 11.20.00 |
| Arrhythmia | 11.00.00 |
| Cardiac arrest | 11.00.21 |
| Sinus bradycardia | 11.02.04 |
| Vagal sinus bradycardia: bradycardia(s) of prematurity | 11.02.15 |
| Sinus tachycardia | 11.02.07 |
| Sudden Arrhythmic Death Syndrome (SADS) | 11.00.11 |
| Supraventricular rhythm disturbance | 11.01.01 |
| Supraventricular tachycardia | 11.01.00 |
| Focal atrial tachycardia: ectopic (automatic) | 11.03.12 |
| Multifocal atrial tachycardia (chaotic) | 11.03.15 |
| Premature atrial beats (complexes-contractions) | 11.03.21 |
| Macro-reentrant atrial tachycardia (including atrial flutter) | 11.03.13 |
| Cavotricuspid isthmus dependent reentry atrial tachycardia: atrial flutter | 11.03.66 |

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|---|---|
| Non-cavotricuspid isthmus dependent atrial tachycardia | 11.03.67 |
| Atrial flutter | 11.03.07 |
| Atrial fibrillation | 11.03.08 |
| Paroxysmal atrial tachycardia | 11.03.05 |
| Rhythm disturbance at level of AV junction | 11.04.00 |
| Atrioventricular junctional (nodal) tachycardia | 11.04.07 |
| Atrioventricular nodal reentry tachycardia (AVNRT) | 11.04.11 |
| Junctional ectopic tachycardia (His bundle) | 11.04.42 |
| AV reciprocating (reentry) tachycardia (accessory pathway mediated) | 11.07.29 |
| Manifest accessory pathway | 11.07.11 |
| AV reciprocating (reentry) tachycardia: manifest preexcitation in sinus rhythm (Wolff Parkinson White) | 11.07.01 |
| Accessory pathway: retrograde conduction only (concealed: no preexcitation sinus rhythm) | 11.07.06 |
| AV reciprocating (reentry) tachycardia: orthodromic | 11.07.22 |
| AV reentry (reciprocating) tachycardia: antidromic (typically wide QRS) | 11.07.23 |
| AV reentry (reciprocating) tachycardia: orthodromic and antidromic | 11.07.28 |
| Permanent junctional reciprocating tachycardia (PJRT) | 11.07.14 |
| Multiple accessory pathways | 11.07.26 |
| Ventricular rhythm disturbance | 11.05.00 |
| Ventricular tachycardia | 11.05.06 |
| Non-sustained ventricular tachycardia | 11.05.50 |
| Macro-reentrant ventricular tachycardia | 11.05.57 |
| Focal ventricular tachycardia | 11.05.56 |
| Ventricular flutter | 11.05.09 |
| Ventricular fibrillation | 11.05.10 |
| Premature ventricular beats (complexes-contractions) | 11.05.21 |
| Conduction disturbance | 11.06.00 |
| Sinoatrial block | 11.06.01 |
| Sinus node dysfunction (including sick sinus) | 11.02.03 |
| 1st degree atrioventricular block | 11.06.02 |
| 2nd degree atrioventricular block | 11.06.03 |
| Complete atrioventricular block (3rd degree) | 11.06.07 |
| Congenital complete heart block | 11.06.16 |
| Acquired complete atrioventricular block | 11.06.10 |
| Complete right bundle branch block | 11.06.23 |
| Complete left bundle branch block | 11.06.24 |
| Morphological abnormality of conduction system | 11.23.00 |
| Ion channelopathy | 11.12.00 |
| Prolonged QT interval | 11.12.01 |
| Long QT syndrome | 11.12.29 |
| Catecholaminergic polymorphic ventricular tachycardia | 11.05.17 |
| Brugada syndrome (ventricular tachycardia with anterior raised ST) | 11.05.44 |
| Complication following arrhythmia related procedure | 15.51.00 |
| Pacemaker dysfunction-complication | 11.11.01 |
| Pacemaker battery exhaustion: end of life (EOL) | 11.11.03 |
| Pacemaker-Implantable cardioverter and defibrillator (ICD) loss of capture | 11.11.17 |

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|---|---|
| Pacemaker dysfunction-complication necessitating replacement | 11.11.00 |
| Pacemaker (atrioventricular dyssynchrony) syndrome | 11.11.21 |
| Pacemaker lead dysfunction-complication | 11.11.40 |
| Pacemaker generator site local complication | 11.11.59 |
| Insertable electrocardiographic (ECG) loop recorder complication | 11.11.80 |
| Implantable cardioverter and defibrillator (ICD) dysfunction-complication | 11.11.60 |
| **Sonstiges** | |
| Laevocardia: heart predominantly in left hemithorax | 02.01.03 |
| Position-orientation of heart abnormal | 02.01.09 |
| Dextrocardia: heart predominantly in right hemithorax | 02.01.02 |
| Midline heart (mesocardia) | 02.01.04 |
| Acute rheumatic fever | 10.05.01 |
| Rheumatic fever with cardiac involvement | 10.05.21 |
| Rheumatic valvar disease | 10.05.30 |
| Rheumatic mitral valvar disease | 10.05.31 |
| Rheumatic aortic valvar disease | 10.05.33 |
| Endocarditis | 10.06.00 |
| Infective endocarditis | 10.06.01 |
| Bacterial endocarditis | 10.06.41 |
| Postprocedural endocarditis | 10.06.64 |
| Heart abscess | 10.06.20 |
| Infectious myocarditis | 10.07.01 |
| Viral myocarditis | 10.07.03 |
| Trypanosomal myocarditis (Chagas' disease) | 10.07.08 |
| Infectious pericarditis | 10.08.01 |
| Viral pericarditis | 10.08.03 |
| Bacterial pericarditis | 10.08.04 |
| Platypnoea-orthodeoxia syndrome | 10.17.50 |
| Systemic arteritis | 10.14.60 |
| Kawasaki disease | 10.09.01 |
| Kawasaki disease without cardiac involvement | 10.09.08 |
| Systemic hypertension | 10.14.01 |
| Primary (essential) systemic hypertension | 10.14.02 |
| Secondary systemic hypertension | 10.14.00 |
| Systemic hypertension due to aortic arch obstruction | 10.14.04 |
| Cardiac conduit complication | 15.55.00 |
| Cardiac conduit failure | 15.55.16 |
| Failed' Fontan type circulation | 15.90.60 |
| Pericardial abnormality: acquired | 10.08.29 |
| Pericarditis | 10.08.00 |
| Constrictive pericarditis | 10.08.09 |
| Pericardial effusion | 10.08.31 |
| Chylopericardium | 10.08.15 |
| Pericardial effusion requiring drainage | 15.83.00 |
| Cardiac tamponade | 10.08.13 |

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|---|---|
| Heart tumour | 10.03.01 |
| Traumatic injury of heart | 10.90.01 |
| Complication after heart or lung transplant | 15.95.00 |
| Heart muscle disease in cardiac rejection | 10.07.42 |
| Cardiac transplant associated coronary allograft vasculopathy | 15.41.13 |
| Lung disease in lung transplant rejection | 15.95.66 |
| Post-lung transplant obliterative bronchiolitis | 15.95.64 |
| Lymphoproliferative disease following transplantation | 15.95.03 |
| Meconium aspiration | 10.15.12 |
| Necrotising enterocolitis | 10.15.05 |
| Transient myocardial ischaemia | 10.15.10 |
| Non-cardiothoracic-vascular abnormality | 14.03.04 |
| Thoracic-mediastinal abnormality | 14.03.29 |
| Tracheobronchial malacia | 14.03.49 |
| Tracheal stenosis | 16.10.01 |
| Tracheal disease | 16.10.09 |
| Lung disease: benign | 16.03.01 |
| Lung disease: malignant | 16.03.21 |
| Airway disease | 16.09.00 |
| Asthma | 16.03.10 |
| Traumatic injury of tracheobronchial tree or lungs | 10.90.24 |
| Acquired bronchial disease | 16.08.00 |
| Bronchial fistula | 16.02.00 |
| Pneumothorax | 16.01.01 |
| Pleural effusion | 16.01.04 |
| Chylothorax | 16.01.07 |
| Empyema | 16.01.11 |
| Pleural disease: benign | 16.01.21 |
| Pleural disease: malignant | 16.01.22 |
| Oesophageal disease: benign | 16.20.01 |
| Oesophageal disease: malignant | 16.20.02 |
| Mediastinal disease | 16.05.13 |
| Mediastinal disease: benign | 16.05.11 |
| Mediastinal disease: malignant | 16.05.12 |
| Diaphragm disease | 16.15.09 |
| Diaphragm disorder: acquired | 16.13.00 |
| Diaphragm paralysis | 16.13.20 |
| Visceral heterotaxy (abnormal arrangement thoraco-abdominal organs) | 03.01.02 |
| Total mirror imagery (situs inversus) | 03.01.03 |
| Right isomerism ('asplenia') | 03.01.04 |
| Left isomerism ('polysplenia') | 03.01.05 |
| Position or morphology of thoraco-abdominal organs abnormal | 03.01.09 |
| Solitary ventricle of indeterminate morphology | 02.03.05 |
| Interatrial communication ('ASD') | 05.04.01 |
| Atrioventricular septal defect (AVSD): atrial and ventricular components with common atrioventricular orifice (complete) | 06.06.09 |

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| Atrioventricular septal defect (AVSD) with ventricular imbalance | 06.07.26 |
| Common arterial trunk (truncus arteriosus) | 09.01.01 |
| Absent pulmonary valve syndrome: Fallot-type | 09.05.25 |
| Transplantation of heart: orthotopic allotransplant | 12.37.02 |

## 3.3 Nicht kardiale Nebendiagnosen

| nicht kardiale Nebendiagnosen | IPCCC |
|---|---|
| NONE | NONE |
| **Diagnostic comorbidities: hereditary, neonatal and non-cardiac codes** | |
| Multiple congenital malformations | 14.06.01 |
| Family history of congenital heart lesion | 10.23.01 |
| Family history of disorder with cardiac involvement | 10.23.03 |
| Maternal teratogen associated with congenital heart disease | 14.05.01 |
| Maternal teratogen or disease potentially associated with congenital heart disease | 14.05.00 |
| Maternal systemic lupus erythematosus (SLE) | 10.23.02 |
| Maternally derived fetal disease or syndrome associated with heart disease | 14.05.40 |
| **Neonatal disorders or abnormalities** | |
| Neonatal disorder | 10.15.00 |
| Infant of diabetic mother | 10.22.03 |
| Biliary atresia | 14.03.12 |
| **Chromosomal anomalies and other syndromes** | |
| Chromosomal anomaly | 14.01.01 |
| Trisomy 21: Down's syndrome | 14.01.02 |
| 45XO: Turner's syndrome | 14.01.05 |
| 22q11 microdeletion | 14.01.21 |
| 22q11 microdeletion with full DiGeorge sequence (includes immune dysfunction) | 14.02.06 |
| Trisomy 18: Edwards' syndrome | 14.01.03 |
| Trisomy 13: Patau's syndrome | 14.01.04 |
| Hereditary disorder associated with heart disease | 10.23.04 |
| Pompe's disease: glycogen storage disease type IIa | 14.02.21 |
| Friedreich's ataxia | 14.02.10 |
| Muscular dystrophy | 14.02.58 |
| Duchenne's muscular dystrophy | 14.02.34 |
| Marfan syndrome | 14.02.17 |
| Noonan syndrome | 14.02.19 |
| Tuberous sclerosis | 14.02.28 |
| Williams syndrome (infantile hypercalcaemia) | 14.02.30 |
| Alagille syndrome: arteriohepatic dysplasia | 14.02.66 |
| Fetal rubella syndrome | 14.02.32 |
| Dyslipidaemia | 10.19.01 |
| Non-cardiac abnormality associated with heart disease | 14.03.00 |
| Spleen absent (asplenia) | 03.07.03 |
| Multiple spleens (polysplenia) | 03.07.04 |
| Cystic fibrosis | 14.03.06 |
| Tracheo-oesophageal fistula | 14.03.08 |
| Duodenal stenosis/atresia | 14.03.11 |
| Gastro-oesophageal reflux disease (GORD) | 14.03.09 |
| Intestines malrotated | 03.06.03 |
| Migraine | 14.04.46 |
| Choanal atresia | 14.03.47 |

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|---|---|
| Cleft lip or palate | 14.04.12 |
| Kyphoscoliosis | 14.04.09 |
| Lower respiratory tract infection | 16.03.02 |
| Postprocedural protein losing enteropathy | 15.82.33 |
| Trisomy 13: Patau's syndrome, | 14.01.04 |
| 7q11 | NONE |
| 7q11.23 | NONE |
| 7q32 | NONE |
| 7q34 | NONE |
| 8q12 | NONE |
| Monosomy X | NONE |
| Loeys-Dietz Syndrome (transforming growth factor beta receptor (TGFBR) gene mutation), | 14.04.85 |
| Cornelia de Lange syndrome, | 14.02.05 |
| Trisomy 09 | NONE |
| 4p16 | NONE |
| Trisomy 18: Edwards' syndrome, | 14.01.03 |
| Trisomy 21: Down's syndrome, | 14.01.02 |
| Apert syndrome: acrocephalosyndactyly type I, | 14.02.02 |
| Brugada syndrome (ventricular tachycardia with anterior raised ST), | 11.05.44 |
| Cardio-facial-cutaneous syndrome, | 14.02.89 |
| Carpenter syndrome: acrocephalosyndactyly type II, | 14.02.04 |
| Cat-Eye syndrome: Trisomy 22pter-q11, | 14.01.11 |
| Anal Atresia (imperforate anus) | 14.03.53 |
| Trisomy 08 | NONE |
| 12q24 | NONE |
| Congenital diaphragmatic hernia, | 14.03.07 |
| Gastroschisis, | 14.03.26 |
| Hirschsprung's disease, | 14.03.13 |
| Omphalocoele, | 14.03.10 |
| Tracheo-oesophageal fistula, | 14.03.08 |
| 11p15.5 | NONE |
| 11q | NONE |
| 6p12 | NONE |
| 12p12.1 | NONE |
| 5p | NONE |
| 15q21.1 | NONE |
| 1q42.1 | NONE |
| 20p12 | NONE |
| 2p21 | NONE |
| 3p22 | NONE |
| 45X0 | NONE |
| XXY: Klinefelter's syndrome, | 14.01.06 |
| 4p | NONE |
| Costello syndrome, | 14.02.88 |
| 12p1.21 | NONE |

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|---|---|
| Rubinstein-Taybi syndrome, | 14.02.85 |
| CHARGE association, | 14.03.02 |
| Marfan-like syndrome | NONE |
| Hurler syndrome: mucopolysaccharidosis type IH, | 14.02.13 |
| Hurler-Scheie syndrome: mucopolysaccharidosis type IH-S, | 14.02.36 |
| Hunter syndrome: mucopolysaccharidosis type II, | 14.02.37 |
| Scheie syndrome: mucopolysaccharidosis type IS, | 14.02.24 |
| Syndrome present, | 14.02.01 |
| Romano-Ward syndrome, | 14.02.23 |
| Rethore syndrome (Trisomy 9) | NONE |
| Loeys-Dietz Syndrome (transforming growth factor beta receptor (TGFBR) gene mutation), | 14.04.85 |
| Short QT syndrome, | 11.12.05 |
| Total mirror imagery (situs inversus), | 03.01.03 |
| Smith-Lemli-Opitz syndrome, | 14.02.25 |
| VACTERL association, | 14.03.01 |
| VACTERL-H syndrome (VATER association with hydrocephalus) (Briard-Evans syndrome) | NONE |
| Warkany syndrome (Trisomy 8) | NONE |
| Atrioventricular reentry (reciprocating) tachycardia: manifest preexcitation in sinus rhythm (Wolff Parkinson White), | 11.07.01 |
| Goldenhar syndrome: facioauriculovertebral spectrum, | 14.02.11 |
| Cri-du-chat syndrome: deletion 5p-, | 14.01.10 |
| Deletion 10p syndrome | NONE |
| Deletion 8p syndrome | NONE |
| Ellis-van Creveld syndrome: chondroectodermal dysplasia, | 14.02.08 |
| Fetal alcohol syndrome, | 14.02.09 |
| Fetal rubella syndrome, | 14.02.32 |
| Deletion 4p-, | 14.01.09 |
| Visceral heterotaxy (abnormal arrangement thoraco-abdominal organs) (situs ambiguus), | 03.01.02 |
| Holt-Oram (heart-hand I) syndrome, | 14.02.12 |
| Jacobsen syndrome | NONE |
| Kabuki syndrome | NONE |
| Absent cilia (Kartagener) syndrome, | 14.02.15 |
| Klinefelter syndrome (XXY Syndrome) | NONE |
| LEOPARD syndrome (multiple lentigenes), | 14.02.16 |
| Fetal drug exposure | NONE |

## 3.4 Status post

| **Status Post** | **IPCCC** |
|---|---|
| 1.5 ventricle repair: superior cavopulmonary (Glenn) anastomosis + right ventricular outflow tract reconstruction | 12.06.19 |
| Abdominal aorta aneurysm repair | 12.16.68 |
| Annuloplasty' of aortic valve | 12.16.14 |
| Anomalous aortic origin of coronary artery repair | 12.23.80 |
| Anomalous coronary artery (eg ALCAPA) repair | 12.23.00 |
| Anomalous systemic venous connection repair | 12.00.81 |

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|---|---|
| Anterior chest wall (pectus) repair | 12.65.23 |
| Aorta aneurysm repair | 12.16.42 |
| Aortic arch aneurysm repair | 12.16.66 |
| Aortic arch repair | 12.18.30 |
| Aortic coarctation transluminal obstruction relief | 12.18.27 |
| Aortic coarctation-hypoplasia repair by patch aortoplasty | 12.18.02 |
| Aortic coarctation-hypoplasia repair by resection & end to end anastomosis | 12.18.01 |
| Aortic coarctation-hypoplasia repair by resection & extended end to end anastomosis | 12.18.10 |
| Aortic coarctation-hypoplasia repair by resection & insertion of tube graft | 12.18.15 |
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| Pulmonary valve closure-oversewing | 12.13.15 |
| Pulmonary valve repair converted to pulmonary valvar replacement | 12.13.55 |
| Pulmonary valvectomy | 12.13.12 |
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| Right atrial septum-tunnel fenestration closure with transluminal device | 12.30.21 |
| Right ventricle to pulmonary arterial tree conduit construction | 12.36.01 |
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| Right ventricular outflow tract obstruction relief | 12.06.41 |
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| Right ventricular procedure | 12.06.26 |
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| Stent placement at site of native aortic coarctation-hypoplasia | 12.18.48 |
| Stent placement in arterial duct (PDA) | 12.10.14 |
| Stent placement in cardiac conduit | 12.36.23 |
| Stent placement in left pulmonary artery | 12.15.14 |
| Stent placement in pulmonary tree | 12.15.50 |
| Stent placement in pulmonary vein | 12.00.22 |
| Stent placement in pulmonary vein or pathway | 12.00.25 |
| Stent placement in right pulmonary artery | 12.15.13 |
| Stent placement in right ventricular outflow tract | 12.06.18 |
| Stent placement in superior caval vein (SVC) | 12.00.36 |
| Stent placement in systemic vein or pathway | 12.00.44 |

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| Stent placement in systemic-to-pulmonary collateral artery (MAPCA(s)) | 12.25.62 |
| Stent redilation | 12.45.10 |
| Subaortic fibromuscular shelf resection | 12.07.01 |
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| Superior caval vein (SVC) procedure | 12.00.39 |
| Superior caval vein to pulmonary artery anastomosis | 12.31.72 |
| Superior caval vein to pulmonary artery anastomosis + Atrioventricular valvar repair | 12.31.72 + 12.90.01 |
| Superior caval vein to pulmonary artery anastomosis + Pulmonary arterioplasty reconstruction | 12.31.72 + 12.14.20 |
| Supra-mitral valvar LA-ring excision | 12.01.32 |
| Supravalvar aortic stenosis repair | 12.16.40 |
| Systemic arterial procedure | 12.22.00 |
| Systemic vein procedure | 12.00.30 |
| Systemic venous pathway procedure (post Senning-Mustard) | 12.00.29 |
| Systemic venous stenosis repair | 12.00.83 |
| Systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) occlusion | 12.25.18 |
| Systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) unifocalisation procedure | 12.25.00 |
| Take down of Extracorporeal Membrane Oxygenation (ECMO) circuitry | 12.87.45 |
| Takedown of Fontan type procedure | 12.30.31 |
| Takedown of Glenn | 12.31.42 |
| Takedown of total cavopulmonary connection (TCPC) | 12.30.56 |
| Termination of pregnancy procedure | 14.10.37 |
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| Thoracic aorta aneurysm transcatheter stent implantation | 12.18.70 |
| Thoracic duct occlusion | 12.32.28 |
| Thoracotomy | 12.40.00 |
| Thoracotomy: redo | 12.40.16 |
| Total cavopulmonary connection (TCPC) using extracardiac inferior caval vein (IVC)-pulmonary artery conduit with fenestration | 12.30.05 |
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| Tracheal procedure | 12.64.20 |
| Tracheobronchial reconstruction procedure | 12.64.40 |
| Transluminal ablation procedure for arrhythmia | 12.38.40 |
| Transluminal ablation procedure with pulmonary vein exclusion | 12.35.84 |
| Transluminal aortic valvar insertion with stent mounted valve | 12.13.81 |
| Transluminal chemical occlusion of coronary artery | 12.23.42 |
| Transluminal cryoablation procedure for arrhythmia | 12.35.46 |
| Transluminal device implantation | 12.45.13 |
| Transluminal diagnostic test occlusion | 12.45.07 |
| Transluminal fenestration of atrial septum-tunnel | 12.01.47 |

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| Transluminal fenestration of ventricular septal defect (VSD) patch | 12.08.20 |
| Transluminal implantation of valve | 12.45.15 |
| Transluminal interatrial communication creation | 12.30.74 |
| Transluminal interventricular communication creation | 12.08.65 |
| Transluminal intracoronary injection of thrombolytic agent | 12.23.30 |
| Transluminal left atrial appendage occlusion with device | 12.38.25 |
| Transluminal mitral valve repair | 12.03.97 |
| Transluminal occlusion of systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) with coil-device | 12.25.65 |
| Transluminal procedure for arrhythmia | 12.35.57 |
| Transluminal procedure for atrial arrhythmia | 12.35.82 |
| Transluminal procedure for catheterisation complication | 12.45.30 |
| Transluminal procedure for ventricular arrhythmia | 12.35.83 |
| Transluminal procedure to systemic-to-pulmonary collateral artery (MAPCA(s)) | 12.25.19 |
| Transluminal procedure using adjunctive therapy | 12.45.59 |
| Transluminal prosthetic valve leak closure using device | 12.45.19 |
| Transluminal pulmonary valvar insertion with stent mounted valve | 12.13.51 |
| Transluminal radiofrequency ablation procedure for arrhythmia | 12.35.48 |
| Transluminal retrieval of device or foreign body | 12.45.04 |
| Transluminal right ventricular biopsy | 12.06.25 |
| Transluminal left ventricular biopsy | 12.07.25 |
| Transluminal therapeutic perforation to establish interchamber and/or intervessel communication | 12.45.58 |
| Transoesophageal echocardiographic examination | 13.01.03 |
| Transplantation of heart: ABO incompatible donor | 12.37.06 |
| Transplantation of heart: heterotopic (piggy back) allotransplant | 12.37.03 |
| Transplantation of heart: orthotopic allotransplant | 12.37.02 |
| Transthoracic echocardiographic examination | 13.01.02 |
| Traumatic injury of heart repair | 12.33.10 |
| Tricuspid leaflet (valvoplasty) procedure | 12.02.02 |
| Tricuspid valvar annuloplasty | 12.02.04 |
| Tricuspid valvar closure | 12.02.70 |
| Tricuspid valvar procedure | 12.02.00 |
| Tricuspid valvar replacement | 12.02.11 |
| Tricuspid valve repair converted to tricuspid valvar replacement | 12.02.83 |
| Tricuspid valvectomy | 12.02.22 |
| Truncal valve cusp(s) repair (valvoplasty) | 12.11.34 |
| Truncal valve repair converted to truncal valvar replacement | 12.11.43 |
| Truncal valve replacement | 12.11.41 |
| Unidirectional superior cavopulmonary (Glenn) anastomosis | 12.31.45 |
| Vagal sinus bradycardia: bradycardia(s) of prematurity | 11.02.15 |
| Vascular ring procedure | 12.17.11 |
| Venovenous collateral occlusion with device | 12.70.08 |
| Ventricle to aorta conduit construction | 12.36.35 |
| Ventricular septal defect (VSD) closure by direct suture | 12.08.02 |
| Ventricular septal defect (VSD) closure using patch | 12.08.03 |

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| Ventricular septal defect (VSD) closure with transluminal device | 12.08.07 |
| Ventricular septation procedure | 12.09.01 |
| Waterston (ascending aorta-right pulmonary artery) anastomosis | 12.31.05 |
| Interatrial communication creation/ enlargement | 12.01.90 |
| ASD closure with patch Partially APVC repair | 12.01.03+12.00.02 |
| Atrial baffle procedure | 12.01.57 |
| Coarctation / hypoplasia of aorta repair | 12.18.00 |
| Damus-Kaye-Stansel type procedure: pulm trunk to aorta end/side anastomosis | 12.09.03 |
| Oesophageal procedure | 12.80.01 |
| Fontan procedure with direct atrio-pulmonary anastomosis | 12.30.32 |
| Fontan procedure with atrio-ventricular connection | 12.30.13 |
| Total cavopulmonary conn (TCPC) using extracardiac IVC-PA conduit | 12.30.54 |
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| Therapeutic radiological procedure on cardiac patient | 13.00.35 |
| Intra-aortic balloon pump (IABP) insertion | 12.87.10 |
| Non-cardiothoracic-vascular procedure on cardiac patient under cardiac anaesthesia | 12.33.53 |
| Pulmonary arterioplasty/ reconstruction: central (proximal to hilar bifurcation) | 12.14.21 |
| Pulmonary arterioplasty/ reconstruction: peripheral (at-beyond hilar bifurcation) | 12.14.22 |
| Pulmonary trunk arterioplasty | 12.14.01 |
| Partial left ventriculectomy-volume reduction (Batista) | 12.07.38 |
| Pulmonary atresia, ventricular septal defect (VSD) & systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) repair | 12.28.11 |
| Pulmonary atresia & ventricular septal defect (VSD) (including Fallot-type) repair | 12.28.01 |
| Pulmonary arteriovenous fistula closure | 12.25.07 |
| Ventricular assist device implantation | 12.87.21 |
| Ross-Konno procedure | 12.16.62 |
| Aortic sinus of Valsalva aneurysm repair | 12.16.85 |
| TAPVC repair | 12.00.00 |
| Systemic-to-pulmonary arterial shunt procedure | 12.31.30 |
| Complex transposition of great arteries repair (DESCRIBE) | 12.29.40 |
| Thoracic / mediastinal procedure (DESCRIBE) | 12.80.00 |
| Absent pulmonary valve syndrome (Fallot type) repair | 12.26.21 |
| AVSD & Tetralogy of Fallot repair | 12.05.11 |
| Tetralogy of Fallot repair Right ventricular outflow tract reconstruction with conduit | 12.26.01+12.06.60 |
| Transplantation of heart and lungs | 12.32.13 |
| Common arterial trunk (truncus) repair Interrupted aortic arch repair | 12.11.00+12.21.00 |
| Ventricular assist device removal | 12.87.41 |
| Video-assisted thoracoscopic approach (VATS) | 12.40.06 |
| VSD enlargement/ creation | 12.08.35 |
| Closure of multiple VSDs | 12.08.16 |
| Maze operation | 12.35.53 |
| Coronary arterial fistula transluminal occlusion | 12.23.13 |
| Double outlet right ventricle with subaortic or doubly committed ventricular septal defect (VSD) & pulmonary stenosis (Fallot-type) repair | 12.27.01 |
| Atrial septectomy | 12.01.43 |

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|---|---|
| Removal of bands from right and left pulmonary arteries | 12.15.16 |

## 3.5 Risikofaktoren kardial

| kardialer Risikofaktor | IPCCC |
|---|---|
| NONE | NONE |
| **Venen** | |
| Superior caval vein (SVC) abnormality | 04.01.00 |
| Left superior caval vein (SVC) persisting to coronary sinus | 04.01.01 |
| Inferior caval vein (IVC) abnormality | 04.03.00 |
| Inferior caval vein (IVC) interruption (absent suprarenal segment) with azygos continuation | 04.03.10 |
| Hepatic vein abnormality | 04.02.00 |
| Systemic vein abnormality: congenital | 04.05.00 |
| Systemic venovenous collateral(s) | 04.00.06 |
| Pulmonary vein abnormality | 04.08.00 |
| Pulmonary vein stenosis | 04.08.91 |
| Totally anomalous pulmonary venous connection | 04.08.05 |
| Totally anomalous pulmonary venous connection: supracardiac | 04.06.00 |
| Totally anomalous pulmonary venous connection: intracardiac | 04.08.10 |
| Totally anomalous pulmonary venous connection: infracardiac | 04.08.20 |
| Totally anomalous pulmonary venous connection: mixed | 04.08.30 |
| Partially anomalous pulmonary venous connection(s) | 04.07.01 |
| Partially anomalous pulmonary venous connection: Scimitar syndrome | 01.01.16 |
| Obstructed pulmonary venous connection(s) | 04.08.06 |
| Coronary sinus abnormality | 04.04.00 |
| Systemic vein abnormality: acquired | 10.30.00 |
| Systemic vein obstruction | 10.30.09 |
| Superior caval vein (SVC) abnormality: acquired | 10.31.01 |
| Postprocedural superior caval vein (SVC) complication | 15.04.01 |
| Inferior caval vein (IVC) abnormality - acquired | 10.31.21 |
| Postprocedural inferior caval vein (IVC) complication | 15.04.05 |
| Pulmonary venous abnormality: acquired | 10.24.00 |
| Postprocedural pulmonary vein complication | 15.05.01 |
| Pulmonary vein obstruction | 15.05.03 |
| Postprocedural major vein complication | 15.04.34 |
| Postprocedural femoral vein complication | 15.04.15 |
| **Vorhöfe** | |
| Right atrial abnormality | 05.01.00 |
| Left atrial abnormality | 05.02.00 |
| Cor triatriatum (divided left atrium) | 05.02.01 |
| Intact atrial septum (no interatrial communication) | 05.03.10 |
| Atrial septum abnormality | 05.03.00 |
| Patent foramen ovale (PFO) | 05.03.01 |
| Atrial septal defect (ASD) within oval fossa (secundum) | 05.04.02 |
| Spontaneous closure of atrial septal defect (ASD) within oval fossa (secundum) | 05.04.03 |
| Sinus venosus defect (ASD) | 05.05.00 |
| Common atrium (virtual absence of atrial septum) | 05.06.01 |

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| Interatrial communication (ASD) through coronary sinus orifice | 05.05.03 |
| Left atrial abnormality: acquired | 15.10.20 |
| Right atrial abnormality: acquired | 15.10.10 |
| Postprocedural right atrial complication | 15.10.11 |
| Postprocedural left atrial complication | 15.10.21 |
| Obstruction of right atrial conduit (including total cavopulmonary connection) | 15.10.13 |
| Atrial septum abnormality: acquired | 10.17.40 |
| Postprocedural atrial septum complication | 15.10.61 |
| Residual interatrial communication ('ASD') | 15.10.63 |
| Ineffective balloon atrial septostomy | 15.10.66 |
| **av-Klappen und AVSD** | |
| Tricuspid atresia | 06.01.01 |
| Tricuspid valvar abnormality | 06.01.00 |
| Tricuspid regurgitation | 06.01.91 |
| Tricuspid regurgitation: congenital | 06.01.25 |
| Tricuspid valvar dysplasia | 06.01.03 |
| Straddling tricuspid valve | 06.01.09 |
| Ebstein's malformation of tricuspid valve | 06.01.34 |
| Tricuspid stenosis | 06.01.92 |
| Mitral atresia | 06.02.01 |
| Mitral stenosis | 06.02.92 |
| Mitral valvar abnormality | 06.02.00 |
| Mitral regurgitation | 06.02.91 |
| Mitral regurgitation: congenital | 06.02.25 |
| Straddling mitral valve | 06.02.09 |
| Supravalvar mitral ring | 05.02.02 |
| Mitral valvar prolapse | 06.02.35 |
| True cleft of mitral leaflet (without atrioventricular septal defect) | 06.02.36 |
| Mitral valve stenosis | 06.02.93 |
| Mitral valvar stenosis: congenital | 06.02.07 |
| Mitral subvalvar apparatus abnormality | 06.02.12 |
| Mitral subvalvar stenosis | 06.02.13 |
| Parachute malformation of mitral valve | 06.02.56 |
| Atrioventricular septal defect (AVSD) | 06.06.00 |
| Atrioventricular septal defect (AVSD): isolated atrial component (primum ASD)(partial) | 06.06.01 |
| Atrioventricular septal defect (AVSD): isolated ventricular component | 06.06.08 |
| Atrioventricular septal defect (AVSD): atrial and (restrictive) ventricular components + separate atrioventricular valve orifices ('intermediate') | 06.06.10 |
| Atrioventricular septal defect (AVSD) atrioventricular valvar abnormality | 06.05.01 |
| Atrioventricular septal defect (AVSD) atrioventricular valvar regurgitation | 06.05.06 |
| Tricuspid valvar abnormality: acquired | 10.32.01 |
| Postprocedural tricuspid valvar complication | 15.11.00 |
| Residual tricuspid regurgitation | 15.11.03 |
| Tricuspid valvar prosthesis complication | 15.11.08 |
| Mitral valvar abnormality: acquired | 10.33.01 |

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| Mitral stenosis: acquired | 10.33.02 |
| Mitral valvar stenosis: recurrent | 10.33.03 |
| Mitral regurgitation: acquired | 10.33.04 |
| Mitral regurgitation: recurrent | 10.33.06 |
| Postprocedural mitral valvar complication | 15.12.00 |
| Residual mitral valvar stenosis | 15.12.01 |
| Residual mitral regurgitation | 15.12.03 |
| Mitral valvar prosthesis complication | 15.12.09 |
| Postprocedural atrioventricular septal defect complication | 15.16.00 |
| Residual ventricular component of atrioventricular septal defect | 15.16.02 |
| Atrioventricular valvar abnormality in atrioventricular septal defect (AVSD): acquired | 10.34.60 |
| Left atrioventricular valvar regurgitation: acquired | 10.34.44 |
| Residual common atrioventricular valvar regurgitation | 15.13.02 |
| Postprocedural right atrioventricular valvar complication | 15.14.00 |
| Postprocedural left atrioventricular valvar complication | 15.15.00 |
| **Ventrikel und Ventrikelseptum** | |
| Ventricular imbalance: dominant left ventricle + hypoplastic right ventricle | 07.08.41 |
| Ventricular imbalance: dominant right ventricle + hypoplastic left ventricle | 07.08.42 |
| Right ventricular abnormality | 07.01.00 |
| Right ventricular aneurysm | 07.01.14 |
| Right ventricular hypoplasia | 07.02.00 |
| Double chambered right ventricle | 07.03.01 |
| Right ventricular outflow tract obstruction | 07.05.01 |
| Left ventricular abnormality | 07.06.00 |
| Left ventricular hypoplasia | 07.07.00 |
| Left ventricular aneurysm | 07.06.13 |
| Left ventricular outflow tract obstruction | 07.09.01 |
| Shone's syndrome: left heart obstruction at multiple sites | 01.01.33 |
| Intact ventricular septum | 07.21.00 |
| Ventricular septal defect (VSD) | 07.10.00 |
| Single ventricular septal defect (VSD) | 07.15.05 |
| Multiple ventricular septal defect (VSD)s | 07.15.04 |
| Perimembranous ventricular septal defect (VSD) | 07.10.01 |
| Ventricular septal defect (VSD) + malaligned outlet septum | 07.10.12 |
| Inlet ventricular septal defect (VSD) | 07.14.05 |
| Muscular ventricular septal defect (VSD) | 07.11.01 |
| Subarterial ventricular septal defect (VSD) | 07.12.00 |
| Doubly committed subarterial ventricular septal defect (VSD) | 07.12.01 |
| Communication between left ventricle + right atrium (Gerbode defect) | 07.14.02 |
| Spontaneous closure of ventricular septal defect (VSD) | 07.16.01 |
| Ventricular septal abnormality | 07.20.00 |
| Aneurysm of membranous septum | 07.20.01 |
| Right ventricular abnormality: acquired | 10.16.00 |
| Right ventricular dysfunction | 07.01.11 |
| Right ventricular-congestive heart failure | 10.16.08 |

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| Postprocedural right ventricular complication | 15.20.01 |
| Postprocedural right ventricular outflow tract complication | 15.20.21 |
| Right ventricular outflow tract obstruction: acquired | 10.16.16 |
| Aneurysm of right ventricular outflow tract patch | 15.20.25 |
| Residual right ventricular outflow tract obstruction | 15.20.23 |
| Left ventricular abnormality: acquired | 10.16.40 |
| Left ventricular dysfunction | 07.06.10 |
| Left ventricular failure | 10.16.47 |
| Ventricular dyssynchrony | 07.00.01 |
| Postprocedural left ventricular complication | 15.21.01 |
| Postprocedural left ventricular outflow tract complication | 15.21.21 |
| Recurrent left ventricular outflow tract obstruction | 10.16.46 |
| Residual left ventricular outflow tract obstruction | 15.21.22 |
| Narrowing of constructed intraventricular tunnel: acquired | 10.16.81 |
| Abnormality associated with acquired ventricular septum defect | 10.16.60 |
| Postmyocardial infarct ventricular septal defect (VSD) | 10.16.62 |
| Residual ventricular septal defect (VSD) | 15.22.02 |
| Myocardial failure in end stage congenital heart disease | 10.07.40 |
| Cardiomyopathy | 10.10.01 |
| Ventricular myocardial noncompaction cardiomyopathy | 07.08.50 |
| Hypertrophic cardiomyopathy | 10.10.20 |
| Dilated cardiomyopathy | 10.10.25 |
| Arrhythmogenic right ventricular cardiomyopathy | 07.01.10 |
| Endocardial fibroelastosis | 10.10.12 |
| Idiopathic restrictive cardiomyopathy | 10.10.11 |
| Infiltrative cardiomyopathy | 10.10.13 |
| Drug induced heart muscle disease | 10.07.05 |
| Nutritional heart muscle disease | 10.07.61 |
| Heart muscle disease in collagen vascular/ connective tissue disorder | 10.07.81 |
| Myocardial infarction | 10.18.00 |
| Acute myocardial infarction | 10.18.01 |
| Postmyocardial infarction complication | 10.18.24 |
| **va-Klappen und große Arterien** | |
| Aortopulmonary window | 09.04.01 |
| Pulmonary artery from ascending aorta (hemitruncus) | 09.09.08 |
| Truncal valvar abnormality | 09.02.00 |
| Truncal valvar regurgitation | 09.02.03 |
| Pulmonary stenosis | 09.05.92 |
| Subpulmonary stenosis | 07.05.30 |
| Pulmonary valvar abnormality | 09.05.00 |
| Pulmonary valvar stenosis | 09.05.01 |
| Pulmonary valvar stenosis: congenital | 09.05.04 |
| Pulmonary regurgitation | 09.05.91 |
| Pulmonary regurgitation: congenital | 09.05.22 |
| Pulmonary atresia | 09.05.11 |

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| Pulmonary atresia: imperforate valve | 09.05.12 |
| Pulmonary trunk (MPA) abnormality | 09.07.00 |
| Supravalvar pulmonary trunk stenosis | 09.07.13 |
| Pulmonary trunk hypoplasia | 09.07.11 |
| Pulmonary arterial abnormality | 09.10.00 |
| Pulmonary arterial stenosis | 09.10.01 |
| Central pulmonary arterial stenosis: proximal to hilar bifurcation | 09.10.07 |
| Peripheral pulmonary arterial stenoses: at-beyond hilar bifurcation | 09.10.06 |
| Right pulmonary arterial stenosis | 09.10.25 |
| Left pulmonary arterial stenosis | 09.10.26 |
| Pulmonary arterial hypoplasia | 09.10.11 |
| Discontinuous (non-confluent) pulmonary arteries | 09.10.10 |
| Pulmonary arterial aneurysm | 09.10.44 |
| Aortic stenosis | 09.15.92 |
| Subaortic stenosis | 07.09.00 |
| Subaortic stenosis due to fibromuscular shelf | 07.09.03 |
| Aortic valvar abnormality | 09.15.00 |
| Aortic valvar stenosis | 09.15.13 |
| Aortic valvar stenosis: congenital | 09.15.01 |
| Eccentric opening of tricuspid aortic valve | 09.15.12 |
| Aortic regurgitation | 09.15.91 |
| Aortic regurgitation: congenital | 09.15.07 |
| Bicuspid aortic valve | 09.15.22 |
| Aortic atresia | 09.15.03 |
| Aortic valvar prolapse | 09.15.30 |
| Aortic abnormality | 07.09.31 |
| Ascending aorta abnormality | 09.16.10 |
| Ascending aorta hypoplasia | 09.16.02 |
| Supravalvar aortic stenosis | 09.16.00 |
| Ascending aorta dilation | 09.16.09 |
| Ascending aorta dilation associated with Marfan syndrome | 09.16.05 |
| Aortic sinus of Valsalva aneurysm | 09.18.01 |
| Aorto-ventricular tunnel | 09.17.01 |
| Aorto: left ventricular tunnel | 09.17.02 |
| Aortic arch abnormality | 09.28.00 |
| Right aortic arch | 09.28.15 |
| Aortic coarctation | 09.29.01 |
| Aortic arch hypoplasia (tubular) | 09.29.11 |
| Interrupted aortic arch | 09.29.31 |
| Aortic arch branch abnormality | 09.30.00 |
| Aberrant origin right subclavian artery | 09.30.02 |
| Aberrant origin left subclavian artery | 09.30.04 |
| Vascular ring | 09.31.00 |
| Double aortic arch | 09.28.09 |
| Pulmonary arterial sling | 09.09.06 |

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| Descending aorta dilation | 09.28.16 |
| Descending-abdominal aorta hypoplasia (middle aortic syndrome) | 09.29.16 |
| Arterial duct (ductus arteriosus) abnormality | 09.27.00 |
| Patent arterial duct (PDA) | 09.27.21 |
| Arteriovenous fistula (malformation) | 09.19.01 |
| Pulmonary arteriovenous fistula (malformation) | 09.19.05 |
| Distal systemic arterial abnormality | 09.20.20 |
| Solitary arterial trunk (absent intrapericardial pulmonary arteries) | 09.07.26 |
| Major systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) | 09.08.01 |
| Systemic-to-pulmonary collateral arter(ies) (MAPCA(s)) stenosis(es) | 09.20.25 |
| Truncal valvar abnormality: acquired | 10.37.01 |
| Residual truncal regurgitation | 15.25.03 |
| Common arterial trunk (truncus) abnormality: acquired | 10.51.01 |
| Postprocedural common arterial trunk complication | 15.25.31 |
| Pulmonary valvar abnormality: acquired | 10.35.01 |
| Pulmonary valvar stenosis: acquired | 10.35.02 |
| Pulmonary valvar stenosis: recurrent | 10.35.03 |
| Pulmonary regurgitation: acquired | 10.35.04 |
| Pulmonary valvar atresia: acquired | 09.05.15 |
| Postprocedural pulmonary valvar complication | 15.30.00 |
| Residual pulmonary valvar stenosis | 15.30.01 |
| Residual pulmonary regurgitation | 15.30.03 |
| Pulmonary valvar prosthesis complication | 15.30.08 |
| Aortic valvar abnormality: acquired | 10.36.01 |
| Aortic valvar stenosis: acquired | 10.36.02 |
| Aortic valvar stenosis: recurrent | 10.36.03 |
| Aortic regurgitation: acquired | 10.36.04 |
| Aortic regurgitation: recurrent | 10.36.06 |
| Postprocedural aortic valvar complication | 15.35.00 |
| Residual aortic valvar stenosis | 15.35.01 |
| Residual aortic regurgitation | 15.35.03 |
| Aortic valvar prosthesis complication | 15.35.08 |
| Prosthetic valve failure | 10.33.00 |
| Subaortic stenosis: acquired | 10.16.86 |
| Subaortic stenosis in complex heart disease: acquired | 10.16.82 |
| Residual subaortic stenosis in complex heart disease | 15.20.75 |
| Subpulmonary stenosis: acquired | 10.16.88 |
| Subpulmonary stenosis in complex heart disease: acquired | 10.16.83 |
| Residual subpulmonary stenosis in complex heart disease | 15.20.76 |
| Heart valvar abnormality: acquired | 10.32.00 |
| Pulmonary arterial disease: acquired | 10.13.50 |
| Right pulmonary arterial stenosis: acquired | 10.13.68 |
| Left pulmonary arterial stenosis: acquired | 10.13.69 |
| Postprocedural pulmonary trunk complication | 15.32.01 |
| Postprocedural right pulmonary artery complication | 15.32.21 |

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| Postprocedural left pulmonary artery complication | 15.32.41 |
| Residual right pulmonary artery stenosis | 15.32.23 |
| Residual left pulmonary artery stenosis | 15.32.43 |
| Pulmonary arterial hypertension | 10.13.01 |
| Primary pulmonary hypertension | 10.13.02 |
| Secondary pulmonary hypertension | 10.13.20 |
| Pulmonary hypertension due to left to right shunt | 10.13.21 |
| Pulmonary vascular disease | 10.13.06 |
| Irreversible pulmonary vascular disease due to congenital heart disease (Eisenmenger Syndrome) | 10.13.08 |
| Pulmonary embolism | 10.13.51 |
| Pulmonary oedema | 10.30.30 |
| Abnormality of aorta: acquired | 10.14.70 |
| Supravalvar aortic stenosis: acquired | 10.14.77 |
| Recoarctation of aorta | 10.14.72 |
| Ascending aorta dilation: acquired | 10.14.40 |
| Ascending aortopathy associated with conotruncal malformations | 10.14.95 |
| Aortic root dilation | 09.16.13 |
| Aortic dissection | 10.14.51 |
| Ascending aorta dissection and propagation beyond arch (DeBakey type I) | 10.14.52 |
| Ascending aorta dissection not beyond arch (DeBakey type II/ Stanford type A) | 10.14.53 |
| Descending aorta dissection and distal propagation (DeBakey type III/ Stanford type B) | 10.14.54 |
| Aortic aneurysm | 10.14.50 |
| Ascending aorta aneurysm | 10.14.42 |
| Descending aorta aneurysm | 10.14.43 |
| Abdominal aorta aneurysm | 10.14.44 |
| Rupture of thoracic aortic aneurysm | 10.14.45 |
| Rupture of abdominal aortic aneurysm | 10.14.46 |
| Postprocedural aortic complication | 15.37.73 |
| Postprocedural ascending aorta complication | 15.36.01 |
| Postprocedural descending aorta complication | 15.37.01 |
| Residual aortic coarctation | 15.37.05 |
| Postprocedural aneurysm of aorta at coarctation site | 15.37.07 |
| Postprocedural systemic arterial complication | 15.24.00 |
| Systemic-to-pulmonary arterial shunt complication | 15.56.00 |
| Systemic-to-pulmonary arterial shunt partial obstruction | 15.56.01 |
| Systemic-to-pulmonary arterial shunt complete obstruction | 15.56.02 |
| Systemic-to-pulmonary arterial shunt failure | 15.56.21 |
| Pulmonary autograft failure | 15.55.24 |
| Arterial duct (ductus arteriosus) abnormality: acquired | 10.14.80 |
| Postprocedural arterial duct complication | 15.39.01 |
| Residual arterial duct (PDA) patency | 15.39.02 |
| Postprocedural systemic-to-pulmonary collateral artery complication | 15.39.50 |
| **anomale Konnektionen** | |
| Diskordant atrioventricular connections | 01.04.01 |

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| Discordant ventriculo-arterial connections (TGA) | 01.05.01 |
| Congenitally corrected transposition of great arteries (discordant atrioventricular and ventriculo-arterial connections) | 01.01.03 |
| Double outlet right ventricle | 01.01.04 |
| Double outlet right ventricle: Fallot type (subaortic or doubly committed ventricular septal defect and pulmonary stenosis) | 01.01.17 |
| Double outlet right ventricle: transposition type (subpulmonary ventricular septal defect) | 01.01.18 |
| Double outlet right ventricle: with non-committed ventricular septal defect | 01.01.19 |
| Double outlet right ventricle: subaortic or doubly committed ventricular septal defect without pulmonary stenosis ('VSD type') | 01.01.40 |
| Double outlet right ventricle: with intact ventricular septum | 01.01.24 |
| Double outlet left ventricle | 01.05.03 |
| **Koronararterien** | |
| Coronary arterial abnormality | 09.46.00 |
| Anomalous origin of coronary artery from pulmonary artery | 09.41.01 |
| Coronary fistula | 09.45.01 |
| Coronary artery: anomalous aortic origin or course | 09.42.00 |
| Aberrant course of coronary artery: across right ventricular outflow tract | 09.43.18 |
| Intramural proximal coronary arterial course | 09.43.05 |
| Coronary arterial aneurysm(s) | 09.46.01 |
| Coronary fistulas from RV ('sinusoidal') | 09.45.11 |
| Right ventricle dependent coronary circulation | 09.46.06 |
| Kawasaki disease with aneurysm(s) or dilated coronary vessels | 10.09.02 |
| Acquired coronary arterial disease | 10.09.10 |
| Ischaemic heart disease | 10.09.30 |
| Postprocedural coronary arterial complication | 15.41.00 |
| Postprocedural coronary artery bypass graft (CABG) complication | 15.41.39 |
| **Rhythmusstörungen und Pacemaker** | |
| Electrocardiographic (ECG) abnormality | 11.20.00 |
| Arrhythmia | 11.00.00 |
| Cardiac arrest | 11.00.21 |
| Sinus bradycardia | 11.02.04 |
| Vagal sinus bradycardia: bradycardia(s) of prematurity | 11.02.15 |
| Sinus tachycardia | 11.02.07 |
| Sudden Arrhythmic Death Syndrome (SADS) | 11.00.11 |
| Supraventricular rhythm disturbance | 11.01.01 |
| Supraventricular tachycardia | 11.01.00 |
| Focal atrial tachycardia: ectopic (automatic) | 11.03.12 |
| Multifocal atrial tachycardia (chaotic) | 11.03.15 |
| Premature atrial beats (complexes-contractions) | 11.03.21 |
| Macro-reentrant atrial tachycardia (including atrial flutter) | 11.03.13 |
| Cavotricuspid isthmus dependent reentry atrial tachycardia: atrial flutter | 11.03.66 |
| Non-cavotricuspid isthmus dependent atrial tachycardia | 11.03.67 |
| Atrial flutter | 11.03.07 |
| Atrial fibrillation | 11.03.08 |
| Paroxysmal atrial tachycardia | 11.03.05 |

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| Rhythm disturbance at level of AV junction | 11.04.00 |
| Atrioventricular junctional (nodal) tachycardia | 11.04.07 |
| Atrioventricular nodal reentry tachycardia (AVNRT) | 11.04.11 |
| Junctional ectopic tachycardia (His bundle) | 11.04.42 |
| AV reciprocating (reentry) tachycardia (accessory pathway mediated) | 11.07.29 |
| Manifest accessory pathway | 11.07.11 |
| AV reciprocating (reentry) tachycardia: manifest preexcitation in sinus rhythm (Wolff Parkinson White) | 11.07.01 |
| Accessory pathway: retrograde conduction only (concealed: no preexcitation sinus rhythm) | 11.07.06 |
| AV reciprocating (reentry) tachycardia: orthodromic | 11.07.22 |
| AV reentry (reciprocating) tachycardia: antidromic (typically wide QRS) | 11.07.23 |
| AV reentry (reciprocating) tachycardia: orthodromic and antidromic | 11.07.28 |
| Permanent junctional reciprocating tachycardia (PJRT) | 11.07.14 |
| Multiple accessory pathways | 11.07.26 |
| Ventricular rhythm disturbance | 11.05.00 |
| Ventricular tachycardia | 11.05.06 |
| Non-sustained ventricular tachycardia | 11.05.50 |
| Macro-reentrant ventricular tachycardia | 11.05.57 |
| Focal ventricular tachycardia | 11.05.56 |
| Ventricular flutter | 11.05.09 |
| Ventricular fibrillation | 11.05.10 |
| Premature ventricular beats (complexes-contractions) | 11.05.21 |
| Conduction disturbance | 11.06.00 |
| Sinoatrial block | 11.06.01 |
| Sinus node dysfunction (including sick sinus) | 11.02.03 |
| 1st degree atrioventricular block | 11.06.02 |
| 2nd degree atrioventricular block | 11.06.03 |
| Complete atrioventricular block (3rd degree) | 11.06.07 |
| Congenital complete heart block | 11.06.16 |
| Acquired complete atrioventricular block | 11.06.10 |
| Complete right bundle branch block | 11.06.23 |
| Complete left bundle branch block | 11.06.24 |
| Morphological abnormality of conduction system | 11.23.00 |
| Ion channelopathy | 11.12.00 |
| Prolonged QT interval | 11.12.01 |
| Long QT syndrome | 11.12.29 |
| Catecholaminergic polymorphic ventricular tachycardia | 11.05.17 |
| Brugada syndrome (ventricular tachycardia with anterior raised ST) | 11.05.44 |
| Complication following arrhythmia related procedure | 15.51.00 |
| Pacemaker dysfunction-complication | 11.11.01 |
| Pacemaker battery exhaustion: end of life (EOL) | 11.11.03 |
| Pacemaker-Implantable cardioverter and defibrillator (ICD) loss of capture | 11.11.17 |
| Pacemaker dysfunction-complication necessitating replacement | 11.11.00 |
| Pacemaker (atrioventricular dyssynchrony) syndrome | 11.11.21 |
| Pacemaker lead dysfunction-complication | 11.11.40 |

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| Pacemaker generator site local complication | 11.11.59 |
| Insertable electrocardiographic (ECG) loop recorder complication | 11.11.80 |
| Implantable cardioverter and defibrillator (ICD) dysfunction-complication | 11.11.60 |
| **Sonstiges** | |
| Laevocardia: heart predominantly in left hemithorax | 02.01.03 |
| Position-orientation of heart abnormal | 02.01.09 |
| Dextrocardia: heart predominantly in right hemithorax | 02.01.02 |
| Midline heart (mesocardia) | 02.01.04 |
| Acute rheumatic fever | 10.05.01 |
| Rheumatic fever with cardiac involvement | 10.05.21 |
| Rheumatic valvar disease | 10.05.30 |
| Rheumatic mitral valvar disease | 10.05.31 |
| Rheumatic aortic valvar disease | 10.05.33 |
| Endocarditis | 10.06.00 |
| Infective endocarditis | 10.06.01 |
| Bacterial endocarditis | 10.06.41 |
| Postprocedural endocarditis | 10.06.64 |
| Heart abscess | 10.06.20 |
| Infectious myocarditis | 10.07.01 |
| Viral myocarditis | 10.07.03 |
| Trypanosomal myocarditis (Chagas' disease) | 10.07.08 |
| Infectious pericarditis | 10.08.01 |
| Viral pericarditis | 10.08.03 |
| Bacterial pericarditis | 10.08.04 |
| Platypnoea-orthodeoxia syndrome | 10.17.50 |
| Systemic arteritis | 10.14.60 |
| Kawasaki disease | 10.09.01 |
| Kawasaki disease without cardiac involvement | 10.09.08 |
| Systemic hypertension | 10.14.01 |
| Primary (essential) systemic hypertension | 10.14.02 |
| Secondary systemic hypertension | 10.14.00 |
| Systemic hypertension due to aortic arch obstruction | 10.14.04 |
| Cardiac conduit complication | 15.55.00 |
| Cardiac conduit failure | 15.55.16 |
| Failed' Fontan type circulation | 15.90.60 |
| Pericardial abnormality: acquired | 10.08.29 |
| Pericarditis | 10.08.00 |
| Constrictive pericarditis | 10.08.09 |
| Pericardial effusion | 10.08.31 |
| Chylopericardium | 10.08.15 |
| Pericardial effusion requiring drainage | 15.83.00 |
| Cardiac tamponade | 10.08.13 |
| Heart tumour | 10.03.01 |
| Traumatic injury of heart | 10.90.01 |
| Complication after heart or lung transplant | 15.95.00 |

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|---|---|
| Heart muscle disease in cardiac rejection | 10.07.42 |
| Cardiac transplant associated coronary allograft vasculopathy | 15.41.13 |
| Lung disease in lung transplant rejection | 15.95.66 |
| Post-lung transplant obliterative bronchiolitis | 15.95.64 |
| Lymphoproliferative disease following transplantation | 15.95.03 |
| Meconium aspiration | 10.15.12 |
| Necrotising enterocolitis | 10.15.05 |
| Transient myocardial ischaemia | 10.15.10 |
| Non-cardiothoracic-vascular abnormality | 14.03.04 |
| Thoracic-mediastinal abnormality | 14.03.29 |
| Tracheobronchial malacia | 14.03.49 |
| Tracheal stenosis | 16.10.01 |
| Tracheal disease | 16.10.09 |
| Lung disease: benign | 16.03.01 |
| Lung disease: malignant | 16.03.21 |
| Airway disease | 16.09.00 |
| Asthma | 16.03.10 |
| Traumatic injury of tracheobronchial tree or lungs | 10.90.24 |
| Acquired bronchial disease | 16.08.00 |
| Bronchial fistula | 16.02.00 |
| Pneumothorax | 16.01.01 |
| Pleural effusion | 16.01.04 |
| Chylothorax | 16.01.07 |
| Empyema | 16.01.11 |
| Pleural disease: benign | 16.01.21 |
| Pleural disease: malignant | 16.01.22 |
| Oesophageal disease: benign | 16.20.01 |
| Oesophageal disease: malignant | 16.20.02 |
| Mediastinal disease | 16.05.13 |
| Mediastinal disease: benign | 16.05.11 |
| Mediastinal disease: malignant | 16.05.12 |
| Diaphragm disease | 16.15.09 |
| Diaphragm disorder: acquired | 16.13.00 |
| Diaphragm paralysis | 16.13.20 |
| Visceral heterotaxy (abnormal arrangement thoraco-abdominal organs) | 03.01.02 |
| Total mirror imagery (situs inversus) | 03.01.03 |
| Right isomerism ('asplenia') | 03.01.04 |
| Left isomerism ('polysplenia') | 03.01.05 |
| Position or morphology of thoraco-abdominal organs abnormal | 03.01.09 |
| Solitary ventricle of indeterminate morphology | 02.03.05 |
| Interatrial communication ('ASD') | 05.04.01 |
| Atrioventricular septal defect (AVSD): atrial and ventricular components with common atrioventricular orifice (complete) | 06.06.09 |
| Atrioventricular septal defect (AVSD) with ventricular imbalance | 06.07.26 |
| Common arterial trunk (truncus arteriosus) | 09.01.01 |

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|---|---|
| Absent pulmonary valve syndrome: Fallot-type | 09.05.25 |

## 3.6 Risikofaktoren nicht kardial

| nicht kardiale Risikofaktor | IPCCC |
|---|---|
| NONE | NONE |
| Coagulation disorder, Hypercoagulable state | 10.20.06 |
| Coagulation disorder, Hypocoagulable state not secondary to medication (intrinsic hypocoagulable state) | 10.20.06 |
| Coagulation disorder, Hypocoagulable state secondary to medication | 10.20.06 |
| Colostomy present | 10.20.40 |
| Currently taking steroids as treatment for adrenal insufficiency | 10.20.43 |
| Currently taking steroids for any reason other than treatment of adrenal insufficiency | 10.20.43 |
| Diabetes mellitus - non-insulin dependent | 14.03.51 |
| Elevated lung resistance for biventricular repair (over 6 Wood units) | 10.13.63 |
| Elevated lung resistance for heart transplant (over 4 Wood units) | 10.13.64 |
| Elevated lung resistance for univentricular repair (over 2 Wood units) | 10.13.65 |
| Enterostomy of small intestine present | 10.20.40 |
| Esophagostomy present | 10.20.40 |
| Functionally congenital single lung | 03.02.14 |
| Gastrostomy present | 10.20.40 |
| Hypothyroidism | 14.03.52 |
| Insulin dependent diabetes mellitus | 14.03.25 |
| Mechanical ventilation to treat cardiorespiratory failure | 10.20.15 |
| Noncardiac abnormality associated with heart disease | 14.03.00 |
| Preoperative pulmonary hypertension crises (PA pressure > systemic pressure) | 10.20.16 |
| Preprocedural (< 48 hours) cerebrovascular accident or intraventricular haemorrhage (> grade 2) | 10.20.42 |
| Preprocedural (> 48 hours) cerebrovascular accident or intraventricular haemorrhage (> grade 2) | 10.20.41 |
| Preprocedural acidosis | 10.20.05 |
| Preprocedural arrhythmia | 10.20.03 |
| Preprocedural cardiopulmonary resuscitation (< 48 hours) | 10.20.33 |
| Preprocedural coagulation disorder | 10.20.06 |
| Preprocedural complete atrioventricular block | 11.06.35 |
| Preprocedural endocarditis | 10.06.65 |
| Preprocedural hepatic dysfunction | 10.20.36 |
| Preprocedural mechanical circulatory support | 10.20.15 |
| Preprocedural necrotising enterocolitis - treated medically | 10.20.38 |
| Preprocedural necrotising enterocolitis - treated surgically | 10.20.39 |
| Preprocedural neurological impairment | 10.20.12 |
| Preprocedural pulmonary hypertension | 10.20.16 |
| Preprocedural renal failure | 10.20.07 |
| Preprocedural renal failure requiring dialysis | 10.20.08 |
| Preprocedural respiratory syncytial virus (RSV) infection | 10.20.37 |
| Preprocedural risk factor | 10.20.19 |
| Preprocedural seizures, | 10.20.18 |
| Preprocedural shock at time of surgery (persistent) | 10.20.31 |
| Preprocedural shock resolved by time of surgery | 10.20.32 |
| Preprocedural tracheostomy | 10.20.17 |

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|---|---|
| Seizure disorder | 14.03.34 |
| Sepsis | 10.20.09 |
| Sepsis with positive blood culture | 10.20.77 |
| Smoking: tobacco use | 14.04.70 |

## 3.7 Operationen

| Operation | IPCCC |
|---|---|
| **Operationen an den grossen Venen** | |
| Pulmonary vein procedure | 12.00.20 |
| Totally anomalous pulmonary venous connection repair (TAPVC repair) | 12.00.00 |
| Partially anomalous pulmonary venous connection repair | 12.00.02 |
| Scimitar syndrome (partially anomalous pulmonary venous connection) repair | 12.00.17 |
| Partially anomalous pulmonary venous connection repair: baffle redirection to left atrium & systemic vein translocated to right atrial appendage (Warden) | 12.00.78 |
| Pulmonary vein stenosis repair | 12.00.03 |
| Pulmonary venous pathway procedure (post Senning-Mustard) | 12.29.52 |
| Systemic vein procedure | 12.00.30 |
| Superior caval vein (SVC) procedure | 12.00.39 |
| Inferior caval vein (IVC) procedure | 12.00.42 |
| Anomalous systemic venous connection repair | 12.00.81 |
| Systemic venous stenosis repair | 12.00.83 |
| Systemic venous pathway procedure (post Senning-Mustard) | 12.00.29 |
| Coronary sinus procedure | 12.00.50 |
| **Operationen der Vorhöfe** | |
| Right atrial procedure | 12.01.60 |
| Left atrial procedure | 12.01.30 |
| Cor triatriatum (divided left atrium) repair | 12.01.31 |
| Patent foramen ovale (PFO) direct closure | 12.01.53 |
| Atrial septal defect (ASD) secundum closure with direct suture | 12.01.02 |
| Atrial septal defect (ASD) secundum closure with patch | 12.01.03 |
| Sinus venosus ASD closure with patch | 12.01.13 |
| Interatrial communication closure: partial | 12.01.08 |
| Atrial fenestration closure | 12.30.41 |
| Interatrial communication creation-enlargement | 12.01.90 |
| Atrial septectomy: closed (Blalock Hanlon) | 12.01.42 |
| Atrial septectomy | 12.01.43 |
| Fenestration of atrial septum | 12.30.20 |
| Atrial septation procedure | 12.01.22 |
| Atrial baffle procedure | 12.01.57 |
| **Operationen an den AV-Klappen und bei AV-Septumdefekt** | |
| Atrioventricular valvar repair | 12.90.01 |
| Tricuspid valvar procedure | 12.02.00 |
| Tricuspid valvar annuloplasty | 12.02.04 |
| Tricuspid leaflet (valvoplasty) procedure | 12.02.02 |
| Tricuspid valvar replacement | 12.02.11 |

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|---|---|
| Tricuspid valve repair converted to tricuspid valvar replacement | 12.02.83 |
| Tricuspid valvar closure | 12.02.70 |
| Tricuspid valvectomy | 12.02.22 |
| Ebstein's malformation of tricuspid valve repair | 12.02.09 |
| Mitral valvar procedure | 12.03.00 |
| Mitral valvar annuloplasty | 12.03.04 |
| Mitral leaflet (valvoplasty) procedure | 12.03.03 |
| Mitral valvotomy | 12.03.01 |
| Mitral valvar replacement | 12.03.11 |
| Mitral valve repair converted to mitral valvar replacement | 12.03.84 |
| Supra-mitral valvar LA-ring excision | 12.01.32 |
| Mitral subvalvar apparatus procedure | 12.03.19 |
| Atrioventricular valvar procedure in double inlet ventricle | 12.46.00 |
| Atrioventricular septal defect procedure | 12.04.00 |
| Atrioventricular septal defect (AVSD): partial (primum ASD) repair | 12.04.01 |
| Atrioventricular septal defect (AVSD): complete (common valve orifice) repair | 12.05.01 |
| Atrioventricular septal defect (AVSD): 'intermediate' repair | 12.05.10 |
| Common atrioventricular valvar leaflet (valvoplasty) procedure | 12.48.01 |
| Atrioventricular septal defect (AVSD): right atrioventricular valvar procedure | 12.04.20 |
| Atrioventricular septal defect (AVSD): left atrioventricular valvar procedure | 12.04.40 |
| Replacement of implanted left atrioventricular valve in atrioventricular septal defect (AVSD) | 12.04.45 |
| Common atrioventricular valve repair converted to atrioventricular valvar replacement | 12.04.33 |
| Common atrioventricular valve replacement | 12.04.18 |
| Atrioventricular septal defect (AVSD): suturing together superior + inferior bridging leaflets to left ventricular side of septum ('cleft') | 12.48.02 |
| Atrioventricular septal defect (AVSD) & Tetralogy of Fallot repair | 12.05.11 |
| **Operationen an den Ventrikeln und am Ventrikelseptum** | |
| Right ventricular procedure | 12.06.26 |
| Double chambered right ventricle repair | 12.06.35 |
| Right ventricular aneurysm repair | 12.06.38 |
| Right ventricular outflow tract procedure | 12.06.00 |
| Right ventricular outflow tract obstruction relief | 12.06.41 |
| Subpulmonary obstruction relief | 12.08.21 |
| 1.5 ventricle repair: superior cavopulmonary (Glenn) anastomosis + right ventricular outflow tract reconstruction | 12.06.19 |
| Left ventricular procedure | 12.07.26 |
| Left ventricular aneurysm repair | 12.07.37 |
| Partial left ventriculectomy-volume reduction (Batista) | 12.07.38 |
| Left ventricular outflow tract procedure | 12.07.00 |
| Left ventricular outflow tract obstruction relief | 12.07.13 |
| Left ventricular outflow tract myectomy-myotomy | 12.07.11 |
| Subaortic obstruction relief | 12.08.22 |
| Subaortic fibromuscular shelf resection | 12.07.01 |
| Left ventricular outflow tract obstruction relief: complex (Konno etc) | 12.07.12 |
| Ventricular septal defect (VSD) closure by direct suture | 12.08.02 |
| Ventricular septal defect (VSD) closure using patch | 12.08.03 |

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|---|---|
| Closure of multiple ventricular septal defect (VSD)s | 12.08.16 |
| Ventricular septal defect (VSD) enlargement/ creation | 12.08.35 |
| Ventricular septal defect (VSD) enlargement | 12.08.06 |
| Open fenestration of ventricular septal defect (VSD) patch | 12.08.19 |
| **Operationen an den VA-Klappen und an den grossen Arterien** | |
| Common arterial trunk (truncus) repair | 12.11.00 |
| Truncal valve cusp(s) repair (valvoplasty) | 12.11.34 |
| Truncal valve replacement | 12.11.41 |
| Truncal valve repair converted to truncal valvar replacement | 12.11.43 |
| Pulmonary valvar procedure | 12.13.00 |
| Pulmonary valvotomy: open | 12.13.02 |
| Pulmonary valvectomy | 12.13.12 |
| Pulmonary valve closure-oversewing | 12.13.15 |
| Pulmonary valvar replacement (not conduit) | 12.13.21 |
| Pulmonary valvar replacement using homograft | 12.13.22 |
| Pulmonary valve repair converted to pulmonary valvar replacement | 12.13.55 |
| Pulmonary trunk band (PA band) | 12.14.02 |
| Pulmonary trunk band removal (de-band) | 12.14.03 |
| Application of right & left pulmonary arterial bands | 12.14.19 |
| Pulmonary artery ligation | 12.14.31 |
| Pulmonary trunk arterioplasty | 12.14.01 |
| Pulmonary arterioplasty/ reconstruction: central (proximal to hilar bifurcation) | 12.14.21 |
| Pulmonary arterioplasty/ reconstruction: peripheral (at-beyond hilar bifurcation) | 12.14.22 |
| Pulmonary aneurysm repair | 12.15.24 |
| Pulmonary arteriovenous fistula closure | 12.25.07 |
| Pulmonary thromboembolectomy | 12.15.48 |
| Pulmonary thromboembolectomy for acute embolus | 12.15.80 |
| Pulmonary thromboembolectomy for chronic (longstanding) embolus | 12.15.81 |
| Procedure involving pulmonary artery | 12.15.11 |
| Removal of bands from right and left pulmonary arteries | 12.15.16 |
| Aortic valvar procedure | 12.16.00 |
| Aortic valvotomy: closed | 12.16.04 |
| Aortic valvotomy: open | 12.16.02 |
| Aortic cusp(s) repair (valvoplasty) | 12.16.11 |
| Aortic valve closure-oversewing | 12.16.61 |
| Annuloplasty' of aortic valve | 12.16.14 |
| Aortic valvar replacement | 12.16.21 |
| Aortic valvar replacement using homograft | 12.16.22 |
| Aortic valvar replacement using heterograft bioprosthesis | 12.16.28 |
| Aortic valvar replacement using mechanical prosthesis | 12.16.29 |
| Aortic valve repair converted to aortic valvar replacement | 12.16.97 |
| Aortic root replacement using homograft | 12.16.63 |
| Aortic root replacement using mechanical prosthesis | 12.16.64 |
| Aortic root replacement using bioprosthesis | 12.17.90 |
| Aortic root replacement: valve sparing technique | 12.17.91 |

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| Ascending aorta replacement | 12.16.65 |
| Ascending aorta replacement & aortic valvar resuspension | 12.16.35 |
| Ross procedure: aortic valve or root replacement with pulmonary autograft & pulmonary valvar replacement | 12.16.30 |
| Ross-Konno procedure | 12.16.62 |
| Aortic sinus of Valsalva procedure | 12.16.80 |
| Aortic sinus of Valsalva distal fistula closure | 12.16.81 |
| Aortic sinus of Valsalva aneurysm repair | 12.16.85 |
| Aorto-left ventricular tunnel closure | 12.16.90 |
| Aortopulmonary window closure | 12.12.01 |
| Pulmonary artery origin from ascending aorta (hemitruncus) repair | 12.14.30 |
| Supravalvar aortic stenosis repair | 12.16.40 |
| Aorta aneurysm repair | 12.16.42 |
| Aortic arch aneurysm repair | 12.16.66 |
| Descending aorta aneurysm repair | 12.16.67 |
| Abdominal aorta aneurysm repair | 12.16.68 |
| Aortic dissection repair | 12.16.59 |
| Aortopexy | 12.17.31 |
| Systemic arterial procedure | 12.22.00 |
| Vascular ring procedure | 12.17.11 |
| Pulmonary arterial sling repair | 12.17.32 |
| Aortic arch repair | 12.18.30 |
| Coarctation-hypoplasia of aorta repair | 12.18.00 |
| Aortic coarctation-hypoplasia repair by resection & end to end anastomosis | 12.18.01 |
| Aortic coarctation-hypoplasia repair by patch aortoplasty | 12.18.02 |
| Aortic coarctation-hypoplasia repair by subclavian flap aortoplasty | 12.18.03 |
| Aortic coarctation-hypoplasia repair by resection & extended end to end anastomosis | 12.18.10 |
| Aortic coarctation-hypoplasia repair by resection & insertion of tube graft | 12.18.15 |
| Interrupted aortic arch repair | 12.21.00 |
| Arterial duct-ligament procedure | 12.24.00 |
| Patent arterial duct (PDA) closure: surgical | 12.24.20 |
| **Operationen bei Fallot'scher Tetralogie, Double Outlet Ventricle und Transposition** | |
| Tetralogy of Fallot repair with transannular patch | 12.26.13 |
| Tetralogy of Fallot repair without transannular patch | 12.26.20 |
| Right ventricle to pulmonary arterial tree conduit construction | 12.36.01 |
| Double outlet right ventricle with subaortic or doubly committed ventricular septal defect (VSD) & pulmonary stenosis (Fallot-type) repair | 12.27.01 |
| Pulmonary atresia & ventricular septal defect (VSD) (including Fallot-type) repair | 12.28.01 |
| Pulmonary atresia, ventricular septal defect (VSD) & systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) repair | 12.28.11 |
| Absent pulmonary valve syndrome (Fallot type) repair | 12.26.21 |
| Systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) occlusion | 12.25.18 |
| Systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) unifocalisation procedure | 12.25.00 |
| Arterial switch procedure | 12.29.21 |
| Senning procedure (atrial inversion) | 12.29.01 |
| Mustard procedure (atrial inversion) | 12.29.02 |

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|---|---|
| Atrial inversion procedure (Mustard or Senning) revision | 12.29.79 |
| Rastelli procedure: intraventricular left ventricle to aorta tunnel & right ventricle to pulmonary artery conduit | 12.29.11 |
| REV procedure: intraventricular left ventricle to aorta tunnel with infundibular septum resection & direct right ventricle to pulmonary trunk anastomosis | 12.27.45 |
| Complex transposition of great arteries repair | 12.29.40 |
| Aortic root translocation to over left ventricle (including Nikaidoh) | 12.27.78 |
| Double outlet right ventricle repair | 12.29.20 |
| Double outlet right ventricle repair with intraventricular tunnel | 12.27.02 |
| Arterial switch & atrial inversion procedures ('double switch') | 12.29.25 |
| Atrial inversion and Rastelli procedures | 12.29.26 |
| Double outlet left ventricle repair | 12.27.50 |
| **Operationen bei funktionell univentrikulärem Herz** | |
| Bidirectional superior cavopulmonary (Glenn) anastomosis | 12.31.11 |
| Bilateral bidirectional superior cavopulmonary (Glenn) anastomoses | 12.31.44 |
| Unidirectional superior cavopulmonary (Glenn) anastomosis | 12.31.45 |
| Hemi-Fontan procedure | 12.31.15 |
| Superior caval vein to pulmonary artery anastomosis | 12.31.72 |
| Fontan type procedure | 12.30.01 |
| Total cavopulmonary connection (TCPC) | 12.30.50 |
| Total cavopulmonary connection (TCPC) using extracardiac inferior caval vein (IVC)-pulmonary artery conduit | 12.30.54 |
| Total cavopulmonary connection (TCPC) using extracardiac inferior caval vein (IVC)-pulmonary artery conduit with fenestration | 12.30.05 |
| Total cavopulmonary conn (TCPC) with lateral atrial tunnel | 12.30.51 |
| Total cavopulmonary connection (TCPC) with fenestrated lateral atrial tunnel | 12.30.06 |
| Fontan procedure with direct atriopulmonary anastomosis | 12.30.32 |
| Fontan procedure with atrioventricular connection | 12.30.13 |
| Fenestration of Fontan type connection | 12.30.27 |
| Fontan-type connection without fenestration | 12.30.28 |
| Fontan type procedure revision or conversion | 12.30.37 |
| Conversion of Fontan repair to total cavopulmonary connection | 12.30.34 |
| Takedown of Fontan type procedure | 12.30.31 |
| Takedown of total cavopulmonary connection (TCPC) | 12.30.56 |
| Takedown of Glenn | 12.31.42 |
| Damus-Kaye-Stansel type procedure: pulmonary trunk to aorta end/side anastomosis | 12.09.03 |
| Norwood type procedure | 12.10.00 |
| Hypoplastic left heart biventricular repair | 12.10.05 |
| Ventricular septation procedure | 12.09.01 |
| **Shunt- und Conduit-Operationen** | |
| Systemic-to-pulmonary arterial shunt procedure | 12.31.30 |
| Modified Blalock interposition shunt | 12.31.46 |
| Modified right Blalock interposition shunt | 12.31.03 |
| Modified left Blalock interposition shunt | 12.31.04 |
| Waterston (ascending aorta-right pulmonary artery) anastomosis | 12.31.05 |
| Central systemic-to-pulmonary arterial interposition shunt | 12.31.06 |
| Closure of systemic-to-pulmonary arterial shunt | 12.31.31 |

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| Conduit construction procedure | 12.36.00 |
| Right ventricle to pulmonary artery valveless conduit construction (Japanese modification: 'Sano') | 12.06.43 |
| Left ventricle to pulmonary artery conduit construction | 12.36.02 |
| Ventricle to aorta conduit construction | 12.36.35 |
| Procedure involving constructed cardiac conduit-shunt | 12.36.40 |
| Replacement of cardiac conduit | 12.36.10 |
| **Operative Eingriffe an den Koronararterien** | |
| Anomalous coronary artery (eg ALCAPA) repair | 12.23.00 |
| Anomalous aortic origin of coronary artery repair | 12.23.80 |
| Coronary fistula procedure | 12.23.07 |
| Ligation of coronary fistula | 12.23.11 |
| Coronary arterial bypass graft (CABG) procedure | 12.23.08 |
| Coronary arterial procedure | 12.23.09 |
| Transluminal intracoronary injection of thrombolytic agent | 12.23.30 |
| Transluminal balloon coronary angioplasty (PTCA) | 12.23.31 |
| Transluminal coronary stent implantation | 12.23.38 |
| Transluminal chemical occlusion of coronary artery | 12.23.42 |
| Left ventricular outflow tract obstruction relief by transcatheter coronary chemical ablation | 12.07.19 |
| **Operationen bei Herzrhythmusstörungen, Herztransplantation und Verschiedenes** | |
| DC cardioversion | 12.32.14 |
| Pacing to abolish arrhythmia | 12.35.60 |
| Pacemaker system placement: temporary | 12.34.60 |
| Pacemaker system placement: permanent | 12.34.67 |
| Pacemaker system placement: permanent epicardial | 12.34.63 |
| Pacemaker system placement: permanent endocardial | 12.34.64 |
| Pacemaker system placement: single chamber | 12.34.50 |
| Pacemaker system placement: dual chamber | 12.34.51 |
| Pacemaker system placement: biventricular | 12.34.52 |
| Cardiac resynchronisation therapy (biventricular pacing) | 12.34.73 |
| Pulse generator box placement | 12.34.85 |
| Pulse generator box replacement | 12.35.13 |
| Pacemaker wire procedure | 12.34.70 |
| Pacemaker wire revision procedure | 12.34.84 |
| Pacemaker procedure | 12.34.68 |
| Surgical ablation procedure for atrial arrhythmia | 12.35.80 |
| Surgical ablation procedure for ventricular arrhythmia | 12.35.81 |
| Maze operation | 12.35.53 |
| Cox-Maze IV procedure | 12.35.72 |
| Implantable cardioverter &defibrillator (ICD) implantation | 12.42.31 |
| Implantable cardioverter &defibrillator (ICD) implantation: single chamber | 12.42.61 |
| Implantable cardioverter &defibrillator (ICD) implantation: dual chamber | 12.42.64 |
| Implantable cardioverter &defibrillator (ICD) implantation: biventricular | 12.42.65 |
| Implantable cardioverter &defibrillator (ICD) procedure | 12.42.39 |
| Implantable cardioverter &defibrillator (ICD) system removal | 12.42.34 |
| Removal of complete implanted cardiac pacemaker system | 12.35.14 |

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| Removal of implanted pacemaker lead | 12.44.75 |
| Heart transplant | 12.37.01 |
| Transplantation of heart: orthotopic allotransplant | 12.37.02 |
| Transplantation of heart: heterotopic (piggy back) allotransplant | 12.37.03 |
| Transplantation of heart: ABO incompatible donor | 12.37.06 |
| Lung(s) transplant | 12.37.60 |
| Single lung transplant | 12.37.13 |
| Double lung transplant | 12.37.20 |
| Transplantation of heart and lungs | 12.32.13 |
| Organ procurement for transplantation | 12.37.70 |
| Pericardiocentesis | 12.32.40 |
| Pericardial drainage: open (pericardiotomy) | 12.32.41 |
| Pericardial window creation | 12.32.46 |
| Pericardiectomy | 12.32.09 |
| Procedure involving pericardium | 12.32.59 |
| Heart tumour resection | 12.32.10 |
| Removal of cardiac vegetations | 12.32.20 |
| Removal of cardiac thrombus | 12.32.22 |
| Traumatic injury of heart repair | 12.33.10 |
| Cardiac procedure | 12.32.21 |
| Palliative procedure | 12.43.25 |
| Peripheral vascular procedure | 12.33.51 |
| Non-cardiothoracic-vascular procedure | 12.33.52 |
| **Frühpostoperative chirurgische Eingriffe und kreislaufunterstützende Systeme** | |
| Postoperative procedure | 12.32.00 |
| Delayed closure of sternum | 12.65.60 |
| Postoperative procedure to control bleeding | 12.32.18 |
| Plication of hemidiaphragm | 12.32.70 |
| Thoracic duct occlusion | 12.32.28 |
| Instigation of renal dialysis | 12.32.90 |
| Cardiac support procedure | 12.87.01 |
| Intra-aortic balloon pump (IABP) insertion | 12.87.10 |
| Intra-aortic balloon pump (IABP) removal: transluminal | 12.87.02 |
| Intra-aortic balloon pump (IABP) insertion: open | 12.87.04 |
| Ventricular assist device implantation | 12.87.21 |
| Right ventricular assist device implantation | 12.87.22 |
| Left ventricular assist device implantation | 12.87.23 |
| Biventricular assist device implantation | 12.87.24 |
| Ventricular assist device removal | 12.87.41 |
| Cardiac support using Extracorporeal Membrane Oxygenation (ECMO) circuitry | 12.87.25 |
| Take down of Extracorporeal Membrane Oxygenation (ECMO) circuitry | 12.87.45 |
| Procedure involving Extracorporeal Membrane Oxygenation (ECMO) circuitry | 12.87.28 |
| Operation related to transcatheter procedure | 12.33.60 |
| Cardiomyoplasty procedure | 12.87.31 |
| Prosthetic heart implantation | 12.37.04 |

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|---|---|
| Sternotomy wound drainage | 12.65.56 |
| **Eingriffe am Thorax und der Lunge** | |
| Debridement of chest wall incision | 12.65.45 |
| Anterior chest wall (pectus) repair | 12.65.23 |
| Pectus carinatum repair | 12.65.13 |
| Pectus excavatum repair | 12.65.14 |
| Sternal wire removal from previous sternotomy | 12.65.48 |
| Mediastinal procedure | 12.65.06 |
| Mediastinal exploration | 12.65.05 |
| Insertion of mediastinal tube drain | 12.32.83 |
| Pleural procedure | 12.65.89 |
| Insertion of pleural tube drain | 12.32.80 |
| Pleurodesis | 12.65.82 |
| Parietal pleurectomy | 12.32.17 |
| Open excision of pleural lesion | 12.65.72 |
| Bronchoscopy | 12.64.00 |
| Bronchoscopic removal of foreign body | 12.64.08 |
| Tracheal procedure | 12.64.20 |
| Tracheobronchial reconstruction procedure | 12.64.40 |
| Lung procedure | 12.66.00 |
| Lung decortication | 12.66.01 |
| Lung mass excision | 12.66.02 |
| Lung lobectomy | 12.66.05 |
| Pneumonectomy | 12.66.06 |
| Lung sequestration repair | 12.66.07 |
| Thoracic-mediastinal procedure | 12.80.00 |
| Oesophageal procedure | 12.80.01 |
| Diaphragm procedure | 12.32.29 |
| Intestinal procedure | 12.80.10 |
| Percutaneous feeding gastrostomy tube placement (PEG) | 12.80.37 |
| Laparotomy | 12.80.38 |
| Non-cardiothoracic-vascular procedure on cardiac patient under cardiac anaesthesia | 12.33.53 |
| Removal of foreign body from heart | 12.32.24 |

## 3.8 Interventionen

| Intervention | IPCCC |
|---|---|
| **Katheterinterventionen** | |
| Coronary arterial fistula transluminal occlusion | 12.23.13 |
| Transluminal intracoronary injection of thrombolytic agent | 12.23.30 |
| Transluminal balloon coronary angioplasty (PTCA) | 12.23.31 |
| Transluminal coronary stent implantation | 12.23.38 |
| Transluminal chemical occlusion of coronary artery | 12.23.42 |
| Therapeutic cardiovascular catheter procedure | 12.45.28 |
| Transluminal procedure using adjunctive therapy | 12.45.59 |
| Transluminal retrieval of device or foreign body | 12.45.04 |
| Balloon dilation of pulmonary vein or pathway | 12.00.24 |
| Balloon dilation of pulmonary vein | 12.00.21 |
| Balloon dilation of pulmonary vein using cutting balloon | 12.00.23 |
| Stent placement in pulmonary vein or pathway | 12.00.25 |
| Stent placement in pulmonary vein | 12.00.22 |
| Balloon dilation of systemic vein or pathway | 12.00.43 |
| Stent placement in systemic vein or pathway | 12.00.44 |
| Stent placement in superior caval vein (SVC) | 12.00.36 |
| Balloon atrial septostomy by pull back (Rashkind) | 12.01.41 |
| Blade atrial septostomy | 12.01.44 |
| Transluminal fenestration of atrial septum-tunnel | 12.01.47 |
| Transluminal interatrial communication creation | 12.30.74 |
| Pacemaker system placement: temporary | 12.34.60 |
| Interatrial communication closure with transluminal device | 12.01.98 |
| Atrial septal defect (ASD) secundum closure with transluminal device | 12.01.06 |
| Patent foramen ovale (PFO) closure with transluminal device | 12.01.07 |
| Right atrial septum-tunnel fenestration closure with transluminal device | 12.30.21 |
| Transluminal left atrial appendage occlusion with device | 12.38.25 |
| Balloon dilation of mitral valve | 12.03.10 |
| Transluminal prosthetic valve leak closure using device | 12.45.19 |
| Transluminal mitral valve repair | 12.03.97 |
| Balloon dilation of right ventricular outflow tract | 12.06.05 |
| Stent placement in right ventricular outflow tract | 12.06.18 |
| Balloon dilation of left ventricular outflow tract | 12.07.07 |
| Ventricular septal defect (VSD) closure with transluminal device | 12.08.07 |
| Transluminal fenestration of ventricular septal defect (VSD) patch | 12.08.20 |
| Transluminal interventricular communication creation | 12.08.65 |
| Balloon dilation of pulmonary valve | 12.13.05 |
| Pulmonary valvar transluminal perforation & dilation | 12.13.09 |
| Balloon dilation of aortic valve | 12.16.05 |
| Balloon dilation of systemic artery | 12.22.11 |
| Aortic valvar transluminal perforation & dilation | 12.16.25 |
| Transluminal pulmonary valvar insertion with stent mounted valve | 12.13.51 |
| Transluminal aortic valvar insertion with stent mounted valve | 12.13.81 |

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|---|---|
| Balloon dilation of pulmonary tree with cutting balloon | 12.15.53 |
| Stent placement in pulmonary tree | 12.15.50 |
| Balloon dilation of pulmonary trunk | 12.14.05 |
| Balloon dilation of right pulmonary artery | 12.15.03 |
| Balloon dilation of left pulmonary artery | 12.15.04 |
| Stent placement in right pulmonary artery | 12.15.13 |
| Stent placement in left pulmonary artery | 12.15.14 |
| Pulmonary trunk flow restriction using transcatheter implanted device | 12.15.25 |
| Transluminal embolectomy from pulmonary tree | 12.15.49 |
| Aortopulmonary window closure with transcatheter device | 12.12.08 |
| Aortic coarctation transluminal obstruction relief | 12.18.27 |
| Balloon dilation of native aortic coarctation-hypoplasia | 12.18.04 |
| Balloon dilation of aortic recoarctation | 12.18.08 |
| Stent placement at site of aortic coarctation | 12.18.17 |
| Stent placement at site of native aortic coarctation-hypoplasia | 12.18.48 |
| Stent placement at site of aortic recoarctation | 12.18.22 |
| Thoracic aorta aneurysm transcatheter stent implantation | 12.18.70 |
| Stent placement in arterial duct (PDA) | 12.10.14 |
| Arterial duct (PDA) closure with transluminal device | 12.24.04 |
| Arterial duct (PDA) closure with transluminal coil | 12.24.21 |
| Arterial duct (PDA) closure with transluminal Amplatzer plug | 12.24.22 |
| Balloon dilation of systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) | 12.25.72 |
| Stent placement in systemic-to-pulmonary collateral artery (MAPCA(s)) | 12.25.62 |
| Transluminal occlusion of systemic-to-pulmonary collateral artery(ies) (MAPCA(s)) with coil/device | 12.25.65 |
| Arteriovenous fistula occlusion | 12.25.02 |
| Venovenous collateral occlusion with device | 12.70.08 |
| Completion of total cavopulmonary connection (TCPC) using transcatheter inferior to superior caval vein covered stent | 12.30.60 |
| Balloon dilation of systemic-to-pulmonary arterial shunt | 12.31.19 |
| Occlusion of systemic-to-pulmonary arterial shunt by transluminal device-embolus | 12.31.34 |
| Balloon dilation of cardiac conduit | 12.36.14 |
| Stent placement in cardiac conduit | 12.36.23 |
| Pericardiocentesis: percutaneous transcatheter | 12.32.43 |
| Automatic cardioverter & defibrillator (ICD) transluminal implantation | 12.42.33 |
| Automatic cardioverter & defibrillator (ICD) transluminal removal | 12.42.35 |
| Stent redilation | 12.45.10 |
| Stent placement | 12.45.11 |
| Balloon dilation | 12.45.12 |
| Balloon dilation of valve | 12.45.21 |
| Transluminal device implantation | 12.45.13 |
| Transluminal therapeutic perforation to establish interchamber and/or intervessel communication | 12.45.58 |
| Transluminal implantation of valve | 12.45.15 |
| Cardiovascular catherisation occlusion procedure with coil | 12.45.14 |
| Transluminal procedure for catheterisation complication | 12.45.30 |

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|---|---|
| Left ventricular outflow tract obstruction relief by transcatheter coronary chemical ablation | 12.07.19 |
| **Ablation** | |
| Transluminal procedure for arrhythmia | 12.35.57 |
| Transluminal procedure for atrial arrhythmia | 12.35.82 |
| Transluminal procedure for ventricular arrhythmia | 12.35.83 |
| Transluminal ablation procedure for arrhythmia | 12.38.40 |
| Transluminal cryoablation procedure for arrhythmia | 12.35.46 |
| Transluminal radiofrequency ablation procedure for arrhythmia | 12.35.48 |
| Transluminal ablation procedure with pulmonary vein exclusion | 12.35.84 |
| Left ventricular outflow tract obstruction relief by transluminal septal radiofrequency | 12.07.14 |
| Left ventricular outflow tract obstruction relief by transluminal cryoablation | 12.07.20 |
| **Biopsien** | |
| Transluminal right ventricular biopsy | 12.06.25 |
| Transluminal left ventricular biopsy | 12.07.25 |
| Coronary embolectomy | 12.19.10 |

## 3.9 Hybridtherapie

| **Hybridtherapie** | **IPCCC** |
|---|---|
| Hybrid approach (combined surgical & transluminal) | 12.41.30 |
| Transapical aortic valve implantation (hybrid approach) | 12.13.84 |
| Intraoperative ventricular septal defect (VSD) closure with transluminal device (hybrid approach) | 12.08.28 |
| Hypoplastic left heart syndrome hybrid approach (transcatheter & surgery) | 12.20.21 |
| Application of bilateral pulmonary arterial bands & transcatheter placement of stent in arterial duct | 12.10.04 |
| Hypoplastic left heart syndrome hybrid approach (transcatheter & surgery) 'stage 2': aortopulmonary amalgamation + superior cavopulmonary anastomosis(es) + debanding of pulmonary arteries + arch repair | 12.20.23 |
| Hypoplastic left heart syndrome hybrid approach (transcatheter & surgery) 'stage 2': aortopulmonary amalgamation + superior cavopulmonary anastomosis(es) + debanding of pulmonary arteries | 12.20.22 |

## 3.10 Komplikation

| Komplikation | IPCCC |
|---|---|
| **Procedure related complications** | |
| Procedure related complication | 15.90.14 |
| Postprocedural complication | 15.90.01 |
| Complication during period of anaesthetic care | 15.90.20 |
| Medication related complication or error | 15.59.00 |
| Complication related to echocardiographic procedure | 15.58.01 |
| Vascular line (access) related complication | 15.88.00 |
| Intraoperative death | 12.33.31 |
| Cardiac arrest during procedure | 15.00.01 |
| Cardiac arrest following procedure | 15.00.02 |
| Postprocedural low cardiac output | 15.00.03 |
| Cardiopulmonary bypass complication | 15.77.00 |
| Postprocedural requirement for mechanical circulatory support | 15.00.09 |
| Postprocedural hypovolaemia | 15.00.30 |
| Arrhythmia following procedure | 15.60.02 |
| Procedure related complete atrioventricular block requiring temporary pacing | 11.06.32 |
| Procedure related complete atrioventricular block requiring permanent pacemaker system | 11.06.33 |
| Junctional ectopic tachycardia (His bundle): post-op | 11.04.12 |
| Postprocedural coagulopathy | 15.02.03 |
| Postprocedural haemolysis | 15.02.07 |
| General systemic complication of cardiac procedure | 15.80.00 |
| Multiple organ dysfunction syndrome (MODS) | 15.80.16 |
| Postprocedural metabolic derangement | 15.80.01 |
| Postprocedural acidosis | 15.80.15 |
| Postprocedural septicaemia | 15.80.05 |
| Capillary leak syndrome | 15.80.06 |
| Systemic inflammatory response syndrome (SIRS) | 15.80.19 |
| Unplanned reoperation during current admission | 12.43.06 |
| Systemic vein obstruction | 10.30.09 |
| Pulmonary venous obstruction | 15.05.03 |
| Postprocedural pulmonary hypertensive crises | 15.80.22 |
| Cardiac reoperation required during postprocedure period (unplanned) | 15.90.91 |
| Cardiac interventional cardiovascular catheter procedure required during postprocedure period (unplanned) | 15.90.92 |
| Noncardiac reoperation required during same admission (unplanned) | 15.90.18 |
| Readmission to hospital required within 30 days of procedure (unplanned) | 15.90.90 |
| Multiple organ dysfunction syndrome (MODS) (multisystem organ failure-MSOF) | 15.80.16 |
| Cardiac failure (severe cardiac dysfunction) | NONE |
| Pulmonary hypertension | 10.13.83 |
| Arrhythmia requiring drug treatment | 11.00.30 |
| Arrhythmia requiring electrical cardioversion treatment | 11.00.31 |
| Other complication | NONE |

| | |
|---|---|
| Procedure related complication | 15.90.14 |
| Postprocedural endocarditis | 10.06.64 |
| **Pulmonary and thoracic complications** | |
| Respiratory complication after cardiac procedure | 15.80.20 |
| Postprocedural requirement for mechanical respiratory support more than 7 days | 15.80.32 |
| Postprocedural requirement for reintubation | 15.80.33 |
| Postprocedural pulmonary infection | 15.80.21 |
| Postprocedural lung collapse (atelectasis) | 15.80.31 |
| Residual pulmonary hypertension after relief of left to right shunt | 15.22.31 |
| Pleural effusion requiring drainage | 15.80.61 |
| Postprocedural chylothorax | 15.80.55 |
| Postprocedural Acute Respiratory Distress Syndrome (ARDS) | 15.80.29 |
| Postprocedural bronchial compression | 15.80.87 |
| Complication following respiratory tract stent implantation | 16.50.20 |
| Intraprocedural phrenic nerve injury (paralysed diaphragm) | 15.80.90 |
| Intraprocedural recurrent laryngeal nerve injury (palsy) | 15.80.93 |
| Postprocedural Horner's syndrome | 15.80.94 |
| Postprocedural requirement for tracheostomy | 15.80.86 |
| Postprocedural pneumothorax | 15.80.62 |
| **Renal complications** | |
| Postprocedural renal failure | 15.82.00 |
| Renal failure requiring temporary dialysis | 15.82.06 |
| Renal failure requiring permanent dialysis | 15.82.07 |
| Renal failure requiring temporary dialysis | 15.82.06 |
| **Gastrointestinal complications** | |
| Postprocedural gastrointestinal bleeding | 15.82.21 |
| Postprocedural inability to sustain gastric feeding | 15.82.23 |
| Postprocedural feeding difficulties | 15.82.38 |
| Postprocedural intestinal obstruction | 15.82.28 |
| Postprocedural necrotising enterocolitis | 15.82.30 |
| Postprocedural peritonitis | 15.82.29 |
| Pseudomembranous colitis | 15.82.32 |
| Postprocedural protein losing enteropathy | 15.82.33 |
| Postprocedural hepatic impairment | 15.82.43 |
| Postprocedural acute pancreatitis | 15.82.47 |
| **Neurological complications** | |
| Neurological complication after cardiac procedure | 15.82.50 |
| Postprocedural new onset seizures | 15.82.67 |
| Postprocedural generalised seizures | 15.82.51 |
| Postprocedural temporary neurological impairment | 15.82.53 |
| Postprocedural permanent neurological impairment | 15.82.57 |
| Postprocedural neurological impairment persisting at discharge | 15.82.68 |
| Postprocedural brain death | 15.82.64 |
| Postprocedural cerebral abscess | 15.82.66 |
| Postprocedural cerebral abnormality on imaging | 15.82.81 |

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|---|---|
| Postprocedural spinal cord injury | 15.83.80 |
| Cerebrovascular accident (stroke) | 14.03.42 |
| Vocal cord dysfunction (possible recurrent laryngeal nerve injury) | 15.81.70 |
| **Wound and pericardial complications** | |
| Median sternotomy complication | 15.03.00 |
| Infection of median sternotomy wound | 15.03.03 |
| Keloid-hypertrophic scar of median sternotomy wound | 15.03.15 |
| Lateral thoracotomy complication | 15.03.30 |
| Infection of lateral thoracotomy wound | 15.03.32 |
| Wound related complication | 15.67.38 |
| Wound dehiscence | 15.03.51 |
| Wound infection | 15.03.50 |
| Pericardial effusion requiring drainage | 15.83.00 |
| Cardiac tamponade | 10.08.13 |
| Sternum left open: elective (planned) | 15.03.57 |
| Sternum left open: unplanned | 15.03.58 |
| Wound dehiscence: sterile | 15.67.34 |
| Wound dehiscence (sterile) Median sternotomy | NONE |
| Wound infection: deep | 15.67.33 |
| Wound infection: superficial | 15.67.32 |
| Bleeding Requiring reoperation | NONE |
| Mediastinitis | 15.03.52 |
| Sternum left open | 15.03.53 |
| **Catheterisation complications** | |
| Cardiac catheterisation complication | 15.50.00 |
| Intramyocardial injection of contrast medium | 15.50.01 |
| Lost pulse after cardiac catheterisation | 15.50.11 |
| Perforation of cardiac chamber-vessel during cardiac catheterisation | 15.50.03 |
| Equipment problem during cardiac catheterisation | 15.50.30 |
| Embolisation of catheter introduced device | 15.50.37 |
| Complication involving device implantation | 15.50.60 |
| Complication involving stent | 15.50.70 |
| Failed attempt to implant coil-device during transcatheter intervention | 15.50.40 |
| **Support device complications** | |
| Intraaortic balloon pump (IABP) complication | 15.57.21 |
| Extracorporeal Membrane Oxygenation (ECMO) circuit complication | 15.57.02 |
| Ventricular assist device complication | 15.57.03 |
| Postpericardiotomy syndrome | 10.08.11 |

## 3.11 Bergersen Risiko Kategorien

| Bergersen - Eingriff/Prozedur | Risikokategorie |
|---|---|
| Balloon angioplasty: Aorta > 8 atm or cutting balloon | 3 |
| Balloon angioplasty: Aorta dilation < 8 atm or ballon pressure unknown | 2 |
| Balloon angioplasty: Pulmonary artery < 4 vessels | 3 |
| Balloon angioplasty: Pulmonary artery >= 4 vessels at least one > 8 atm | 4 |
| Balloon angioplasty: Pulmonary artery >= 4 vessels all < 8 atm | 3 |
| Balloon angioplasty: Pulmonary vein | 4 |
| Balloon angioplasty: RVOT | 2 |
| Balloon angioplasty: Systemic artery (not aorta) | 3 |
| Balloon angioplasty: Systemic to pulmonary collaterals | 3 |
| Balloon angioplasty: Systemic vein | 3 |
| Device or coil closure: ASD or PFO | 2 |
| Device or coil closure: Baffle leak | 3 |
| Device or coil closure: Coronary fistula | 3 |
| Device or coil closure: Fontan fenestration | 2 |
| Device or coil closure: LSVC | 1 |
| Device or coil closure: PDA | 2 |
| Device or coil closure: Perivalvular leak | 4 |
| Device or coil closure: Systemic surgical shunt | 3 |
| Device or coil closure: Systemic to pulmonary artery collaterals | 2 |
| Device or coil closure: Venous collateral | 1 |
| Device or coil closure: VSD | 4 |
| Other: Any catheterization < 4 days after surgery | 4 |
| Other: Atretic valve perforation | 4 |
| Other: Atrial septostomy | 3 |
| Other: Atrial septum dilation and stent | 4 |
| Other: Recanalization of jailed vessel in stent | 3 |
| Other: Recanalization of occluded vessel | 3 |
| Other: Snare foreign body | 2 |
| Other: Transseptal puncture | 2 |
| Stent placement: Aorta | 3 |
| Stent placement: Pulmonary artery | 4 |
| Stent placement: Pulmonary vein | 4 |
| Stent placement: RVOT | 3 |
| Stent placement: Systemic artery (not aorta) | 3 |
| Stent placement: Systemic pulmonary collateral | 4 |
| Stent placement: Systemic surgical shunt | 4 |
| Stent placement: Systemic vein | 2 |
| Stent placement: Ventricular septum | 4 |
| Stent redilation: Aorta | 2 |
| Stent redilation: Atrial septum | 2 |
| Stent redilation: Pulmonary artery | 3 |

| | |
|---|---|
| Stent redilation: Pulmonary vein | 3 |
| Stent redilation: RVOT | 2 |
| Stent redilation: Systemic artery (not aorta) | 2 |
| Stent redilation: Systemic vein | 2 |
| Stent redilation: Ventricular septum | 3 |
| Valvuloplasty: Aortic valve < 1 month | 4 |
| Valvuloplasty: Aortic valve >= 1 month | 3 |
| Valvuloplasty: Mitral valve | 3 |
| Valvuloplasty: Pulmonary valve < 1 month | 3 |
| Valvuloplasty: Pulmonary valve >= 1 month | 2 |
| Valvuloplasty: Tricuspid valve | 3 |
| Elektrophysiologische Untersuchung | n.a. |
| Stent placement: Ductus arteriosus | 4 |
| Pulmonary valve placement: stent mounted biological valve conduit (e.g. Melody) | 3 |
| Other: Myocardial biopsy | 1 |
| Transluminal intracoronary injection of thrombolytic agent | n.a. |
| Transluminal balloon coronary angioplasty (PTCA) | n.a. |
| Transluminal coronary stent implantation | n.a. |
| Transluminal chemical occlusion of coronary artery | n.a. |
| Blade atrial septostomy | n.a. |
| Transluminal fenestration of atrial septum-tunnel | n.a. |
| Transluminal left atrial appendage occlusion with device | n.a. |
| Transluminal mitral valve repair | n.a. |
| Balloon dilation of left ventricular outflow tract | n.a. |
| Transluminal fenestration of ventricular septal defect (VSD) patch | n.a. |
| Transluminal interventricular communication creation | n.a. |
| Transluminal aortic valvar insertion with stent mounted valve | n.a. |
| Pulmonary trunk flow restriction using transcatheter implanted device | n.a. |
| Transluminal embolectomy from pulmonary tree | n.a. |
| Aortopulmonary window closure with transcatheter device | n.a. |
| Arteriovenous fistula occlusion | n.a. |
| Completion of total cavopulmonary connection (TCPC) using transcatheter inferior to superior caval vein covered stent | n.a. |
| Balloon dilation of systemic-to-pulmonary arterial shunt | n.a. |
| Balloon dilation of cardiac conduit | n.a. |
| Stent placement in cardiac conduit | n.a. |
| Pericardiocentesis: percutaneous transcatheter | n.a. |
| Transluminal procedure for arrhythmia | n.a. |
| Transluminal procedure for atrial arrhythmia | n.a. |
| Transluminal procedure for ventricular arrhythmia | n.a. |
| Transluminal ablation procedure for arrhythmia | n.a. |
| Transluminal cryoablation procedure for arrhythmia | n.a. |
| Transluminal radiofrequency ablation procedure for arrhythmia | n.a. |
| Transluminal ablation procedure with pulmonary vein exclusion | n.a. |
| Transluminal therapeutic perforation to establish interchamber and/or intervessel communication | n.a. |

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|---|---|
| Transluminal implantation of valve | n.a. |
| Left ventricular outflow tract obstruction relief by transluminal septal radiofrequency | n.a. |
| Left ventricular outflow tract obstruction relief by transluminal cryoablation | n.a. |
| Left ventricular outflow tract obstruction relief by transcatheter coronary chemical ablation | n.a. |