

# Comparing COVID19 and Flu Vaccines Using WHO Data

By Craig Paardekooper

The WHO records for COVID19 vaccines were compared with the WHO records for FLU vaccines for the 27 most commonly occurring symptoms .

COVID19 Vaccines : Total Cardiac Disorders = 313821

COVID19 Vaccines : Total for all Disorders = 5192490

FLU Vaccines : Total Cardiac Disorders = 7100

FLU Vaccines : Total for all Disorders = 313949

Data gathered on 14<sup>th</sup> October 2023

WORLD HEALTH ORGANISATION VIGACCESS DATABASE 14th October 2023						
Symptoms	COVID	FLU	COVID %	FLU %	PRR	
Myocarditis	28838	234	0.5554	0.0745	7.451	
Arrhythmia	33794	330	0.6508	0.1051	6.192	
Angina pectoris	13843	140	0.2666	0.0446	5.978	
Pericarditis	23533	317	0.4532	0.1010	4.489	
Extrasystoles	5638	77	0.1086	0.0245	4.427	
Myopericarditis	3572	49	0.0688	0.0156	4.408	
Acute Myocardial Infarction	5823	86	0.1121	0.0274	4.094	
Palpitations	101081	1946	1.9467	0.6198	3.141	
Cardiovascular Disorder	6851	140	0.1319	0.0446	2.959	
Pericardial Effusion	5252	124	0.1011	0.0395	2.561	
Tachycardia	73217	1759	1.4101	0.5603	2.517	
Ventricular extrasystoles	3104	81	0.0598	0.0258	2.317	
Cardiac Disorder	4761	135	0.0917	0.0430	2.132	
Sinus tachycardia	2695	87	0.0519	0.0277	1.873	
Myocardial Infarction	9837	323	0.1894	0.1029	1.841	
Atrial Fibrillation	14923	503	0.2874	0.1602	1.794	
Atrial flutter	1422	51	0.0274	0.0162	1.686	
Cardiac Failure	6048	218	0.1165	0.0694	1.677	
Supraventricular tachycardia	1789	75	0.0345	0.0239	1.442	
Cardio-respiratory arrest	1935	82	0.0373	0.0261	1.427	
Cardiomegaly	1656	82	0.0319	0.0261	1.221	
Bradycardia	4886	256	0.0941	0.0815	1.154	
Cardiac Arrest	5689	315	0.1096	0.1003	1.092	
Cardiac failure congestive	1927	116	0.0371	0.0369	1.004	

A safety signal is where the PRR > 1 and PRR > lower limit of 95% confidence interval.

Covid-19 vaccines generated very strong safety signals for myocarditis, arrhythmia, pericarditis, infarctions, palpitations, tachycardia and cardiac disorder.

Equal sized samples of COVID19 vaccine records have 7 x the expected frequency of myocarditis compared to samples of FLU vaccine records of the same size.

## Comparison to VAERS data

100 random samples of COVID-19 vaccine reports were generated from the pool of all COVID19 vaccine reports. Each sample contained 70,000 COVID 19 vaccine records.

100 random samples of FLU3 vaccine reports were generated, each sample containing 70,000 FLU3 vaccine records.

So every COVID 19 sample was compared with a FLU vaccine sample of exactly the same size.

The frequency of the symptom “**arrhythmia**” was counted in both cases, for each of the 100 samples –

9.00	Counts = 153   17	8.79	Counts = 167   19	7.43	Counts = 156   21
7.61	Counts = 175   23	8.24	Counts = 173   21	6.58	Counts = 158   24
7.14	Counts = 157   22	7.00	Counts = 175   25	9.81	Counts = 157   16
7.90	Counts = 166   21	8.32	Counts = 158   19	10.00	Counts = 160   16
6.60	Counts = 165   25	10.28	Counts = 185   18	7.20	Counts = 144   20
7.91	Counts = 182   23	8.37	Counts = 159   19	7.50	Counts = 150   20
8.61	Counts = 155   18	9.26	Counts = 176   19	7.38	Counts = 155   21
7.18	Counts = 158   22	7.86	Counts = 165   21	8.35	Counts = 167   20
9.22	Counts = 166   18	6.72	Counts = 168   25	10.62	Counts = 170   16
6.65	Counts = 153   23	7.94	Counts = 143   18	9.24	Counts = 157   17
6.38	Counts = 153   24	9.69	Counts = 155   16	7.05	Counts = 155   22
8.42	Counts = 160   19	8.23	Counts = 181   22	6.20	Counts = 155   25
5.42	Counts = 141   26	7.17	Counts = 172   24	9.10	Counts = 182   20
5.83	Counts = 140   24	9.00	Counts = 153   17	4.87	Counts = 151   31
8.29	Counts = 174   21	10.53	Counts = 179   17	5.04	Counts = 141   28
6.73	Counts = 148   22	6.85	Counts = 178   26	6.48	Counts = 188   29
6.15	Counts = 166   27	7.76	Counts = 163   21	10.38	Counts = 166   16
8.40	Counts = 168   20	13.15	Counts = 171   13	6.56	Counts = 177   27
6.24	Counts = 156   25	7.60	Counts = 152   20	7.09	Counts = 156   22
8.21	Counts = 156   19	6.91	Counts = 152   22	12.47	Counts = 187   15
10.80	Counts = 162   15	9.47	Counts = 161   17	6.60	Counts = 165   25
5.21	Counts = 177   34	9.00	Counts = 171   19	8.19	Counts = 172   21
9.12	Counts = 155   17	11.80	Counts = 177   15	10.47	Counts = 157   15
6.50	Counts = 156   24	7.36	Counts = 162   22	10.93	Counts = 153   14
7.95	Counts = 175   22	8.11	Counts = 146   18	5.96	Counts = 143   24
8.58	Counts = 163   19	8.24	Counts = 173   21	6.23	Counts = 162   26
9.68	Counts = 184   19	9.18	Counts = 156   17	8.10	Counts = 162   20
9.00	Counts = 171   19	6.75	Counts = 162   24	5.64	Counts = 158   28
8.37	Counts = 159   19	7.26	Counts = 167   23	7.04	Counts = 162   23
7.52	Counts = 158   21	6.48	Counts = 149   23	7.79	Counts = 148   19
8.00	Counts = 160   20	7.09	Counts = 156   22	15.40	Counts = 154   10
7.57	Counts = 159   21	7.09	Counts = 156   22	7.78	Counts = 179   23
7.76	Counts = 163   21	6.08	Counts = 158   26		
7.27	Counts = 160   22	7.29	Counts = 153   21		

As you can see, the PRR ratio is close to 6 confirming the WHO data.



## Full list of Cardiac Symptoms for Covid 19 and Flu Vaccines

### COVID 19

Palpitations (101081)  
Tachycardia (73217)  
Arrhythmia (33794)  
Myocarditis (28838)  
Pericarditis (23533)  
Atrial fibrillation (14923)  
Angina pectoris (13843)  
Myocardial infarction (9837)  
Cardiovascular disorder (6851)  
Cardiac failure (6048)  
Acute myocardial infarction (5823)  
Cardiac arrest (5689)  
Extrasystoles (5638)  
Pericardial effusion (5252)  
Bradycardia (4886)  
Cardiac disorder (4761)  
Cardiac flutter (4547)  
Cardiac discomfort (4177)  
Myopericarditis (3572)  
Ventricular extrasystoles (3104)  
Sinus tachycardia (2695)  
Cardio-respiratory arrest (1935)  
Cardiac failure congestive (1927)  
Supraventricular tachycardia (1789)  
Cardiomegaly (1656)  
Postural orthostatic tachycardia syndrome (1567)  
Atrial flutter (1422)

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Acute coronary syndrome (1 303)  
Coronary artery disease (1 278)  
Cardiomyopathy (1 140)  
Ventricular tachycardia (1 130)  
Supraventricular extrasystoles (1 012)  
Ventricular fibrillation (919)  
Cardiac failure acute (918)  
Cardiogenic shock (903)  
Mitral valve incompetence (897)  
Myocardial ischaemia (794)  
Left ventricular dysfunction (644)  
Cardiac fibrillation (631)  
Bundle branch block right (621)  
Atrioventricular block (607)  
Left ventricular failure (559)  
Dilated cardiomyopathy (550)  
Carditis (543)  
Tachyarrhythmia (537)  
Sinus bradycardia (534)  
Bundle branch block left (530)  
Tricuspid valve incompetence (515)  
Coronary artery occlusion (508)  
Atrioventricular block complete (475)

Intracardiac thrombus (439)  
Coronary artery thrombosis (434)  
Pulseless electrical activity (431)  
Stress cardiomyopathy (414)  
Myocardial injury (380)  
Ventricular hypokinesia (376)  
Angina unstable (364)  
Left ventricular hypertrophy (358)  
Sinus arrhythmia (357)  
Arteriosclerosis coronary artery (352)  
Cardiac dysfunction (331)  
Cardiovascular insufficiency (327)  
Cardiac tamponade (314)  
Atrial tachycardia (313)  
Aortic valve incompetence (298)  
Cardiac failure chronic (291)  
Atrioventricular block second degree (290)  
Coronary artery stenosis (278)  
Diastolic dysfunction (249)  
Atrioventricular block first degree (236)  
Tachycardia paroxysmal (212)  
Pleuropericarditis (209)  
Heart valve incompetence (203)  
Right ventricular failure (203)  
Arrhythmia supraventricular (202)  
Cardiac valve disease (201)  
Ventricular arrhythmia (200)

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Right ventricular dysfunction (195)  
Hypertensive heart disease (193)  
Acute left ventricular failure (190)  
Cardiovascular symptom (184)  
Mitral valve prolapse (181)  
Cardiopulmonary failure (170)  
Myocardial oedema (170)  
Coronary artery dissection (161)  
Cardiac ventricular thrombosis (154)  
Myocardial fibrosis (150)  
Sinus node dysfunction (144)  
Left atrial enlargement (142)  
Chronic left ventricular failure (141)  
Right ventricular dilatation (138)  
Arteriospasm coronary (125)  
Left ventricular dilatation (121)  
Cardiac hypertrophy (119)  
Pericardial fibrosis (115)  
Acute cardiac event (114)  
Cor pulmonale acute (109)  
Pericardial haemorrhage (108)  
Ischaemic cardiomyopathy (106)  
Aortic valve stenosis (105)

Systolic dysfunction (105)  
Prinzmetal angina (102)  
Cardiovascular deconditioning (99)  
Ventricular hypertrophy (93)  
Ventricular dysfunction (91)  
Bundle branch block (89)  
Left atrial dilatation (87)  
Cardiac aneurysm (83)  
Atrial thrombosis (82)  
Sinus arrest (80)  
Pericardial disease (73)  
Cor pulmonale (70)  
Pericardial rub (68)  
Conduction disorder (66)  
Atrial enlargement (65)  
Pulmonary valve incompetence (61)  
Pericarditis constrictive (60)  
Myocardial necrosis (53)  
Right atrial enlargement (53)  
Tachycardia foetal (53)  
Right ventricular enlargement (52)  
Heart alternation (51)  
Myocardial rupture (48)  
Nodal rhythm (44)  
Right atrial dilatation (43)  
Left ventricular enlargement (42)  
Torsade de pointes (42)

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Cardiac sarcoidosis (41)  
Microvascular coronary artery disease (41)  
Mitral valve disease (41)  
Wolff-Parkinson-White syndrome (41)  
Coronary artery dilatation (39)  
Right ventricular hypertrophy (39)  
Eosinophilic myocarditis (38)  
Bradyarrhythmia (37)  
Aortic valve calcification (36)  
Defect conduction intraventricular (36)  
Mitral valve calcification (36)  
Supraventricular tachyarrhythmia (36)  
Aortic valve sclerosis (35)  
Foetal cardiac arrest (35)  
Dilatation atrial (34)  
Mitral valve stenosis (34)  
Mitral valve thickening (34)  
Cardiac ventricular disorder (33)  
Cardiorenal syndrome (33)  
Paroxysmal arrhythmia (32)  
Aortic valve disease (30)  
Coronary artery embolism (30)  
Long QT syndrome (30)

Bradycardia foetal (29)  
Cardiac septal hypertrophy (29)  
Cardiac amyloidosis (28)  
Cardio-respiratory distress (28)  
Nodal arrhythmia (28)  
Bifascicular block (27)  
Ventricular enlargement (27)  
Tachycardia induced cardiomyopathy (26)  
Aortic valve thickening (25)  
Cardiac asthma (25)  
Dilatation ventricular (25)  
Dressler's syndrome (25)  
Coronary artery aneurysm (24)  
Giant cell myocarditis (24)  
Kounis syndrome (24)  
Sinoatrial block (24)  
Hyperdynamic left ventricle (23)  
Ventricular tachyarrhythmia (21)  
Hypersensitivity myocarditis (20)  
Cardiomyopathy acute (18)  
Chordae tendinae rupture (18)  
Chronic coronary syndrome (18)  
Low cardiac output syndrome (18)  
Ventricular failure (18)  
Silent myocardial infarction (17)  
Autoimmune myocarditis (16)  
Cardiac perfusion defect (16)

Tricuspid valve disease (16)  
Ventricular dyskinesia (16)  
Arrhythmia neonatal (15)  
Arteritis coronary (14)  
Coronary ostial stenosis (14)  
Heart valve calcification (14)  
Hypertensive cardiomyopathy (14)  
Myocardial hypoxia (14)  
Pulmonary valve stenosis (14)  
Foetal heart rate deceleration abnormality (13)  
Cardiac contractility decreased (12)  
Cardiac ventricular scarring (12)  
Trifascicular block (12)  
Ventricular dyssynchrony (12)  
Chronic myocarditis (11)  
Immune-mediated myocarditis (11)  
Pericardial cyst (11)  
Agonal rhythm (10)  
Bradycardia neonatal (10)  
Foetal arrhythmia (10)  
Intracardiac mass (10)  
Rheumatic heart disease (10)  
Rhythm idioventricular (10)

Arrhythmic storm (9)  
Heart valve stenosis (9)  
Hepatojugular reflux (9)  
Paroxysmal atrioventricular block (9)  
Pericardial mass (9)  
Restrictive cardiomyopathy (9)  
Cardiac steatosis (8)  
Early repolarisation syndrome (8)  
Pulmonary valve disease (8)  
Toxic cardiomyopathy (8)  
Ventricular flutter (8)  
Ventricular pre-excitation (8)  
Ventricular remodelling (8)  
Aortic valve disease mixed (7)  
Bundle branch block bilateral (7)  
Subendocardial ischaemia (7)  
Ventricle rupture (7)  
Accelerated idioventricular rhythm (6)  
Foetal heart rate disorder (6)  
Gastrocardiac syndrome (6)  
Pericarditis rheumatic (6)  
Pneumopericardium (6)  
Acute right ventricular failure (5)  
Adams-Stokes syndrome (5)  
Anomalous atrioventricular excitation (5)  
Athletic heart syndrome (5)  
Atrioventricular dissociation (5)

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Cardiac perforation (5)  
Cardiomyopathy neonatal (5)  
Coronary artery insufficiency (5)  
Degenerative aortic valve disease (5)  
Endocarditis noninfective (5)  
Hyperkinetic heart syndrome (5)  
Interventricular septum rupture (5)  
Intrapericardial thrombosis (5)  
Myocardial haemorrhage (5)  
Myocarditis post infection (5)  
Pericarditis adhesive (5)  
Right ventricular diastolic collapse (5)  
Right ventricular hypertension (5)  
Autoimmune pericarditis (4)  
Cardiac failure high output (4)  
Cardiac valve sclerosis (4)  
Left atrial hypertrophy (4)  
Non-obstructive cardiomyopathy (4)  
Papillary muscle rupture (4)  
Positive cardiac inotropic effect (4)  
Sigmoid-shaped ventricular septum (4)  
Anginal equivalent (3)  
Cardiac valve thickening (3)  
Cardiotoxicity (3)  
Degenerative mitral valve disease (3)  
Endocardial disease (3)  
Foetal heart rate acceleration abnormality (3)

Haemorrhage coronary artery (3)  
Lambl's excrescences (3)  
Myocardial depression (3)  
Myxomatous mitral valve degeneration (3)  
Pericardial calcification (3)  
Postinfarction angina (3)  
Pulmonary valve thickening (3)  
Reperfusion arrhythmia (3)  
Tricuspid valve calcification (3)  
Wellens' syndrome (3)  
Accessory cardiac pathway (2)  
Acquired cardiac septal defect (2)  
Atrial escape rhythm (2)  
Atrioventricular node dysfunction (2)  
Cardiac granuloma (2)  
Cardiac valve discolouration (2)  
Cardiohepatic syndrome (2)  
Cardiomyopathy alcoholic (2)  
Chronotropic incompetence (2)  
Cor pulmonale chronic (2)  
Coronary sinus dilatation (2)  
Endocardial fibrosis (2)  
Endocarditis rheumatic (2)  
Hypertensive cardiomegaly (2)  
Lupus endocarditis (2)  
Malignant hypertensive heart disease (2)  
Mitral perforation (2)

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Mitral valve sclerosis (2)  
Myocardial calcification (2)  
Myocardial stunning (2)  
Neonatal bradyarrhythmia (2)  
Parasystole (2)  
Pericarditis lupus (2)  
Pericarditis uraemic (2)  
Right atrial hypertrophy (2)  
Sinusoidal foetal heart rate pattern (2)  
Thyrotoxic cardiomyopathy (2)  
Tricuspid valve prolapse (2)  
Tricuspid valve stenosis (2)  
Wandering pacemaker (2)  
Abnormal precordial movement (1)  
Atrial hypertrophy (1)  
Atrioventricular conduction time shortened (1)  
Bezold-Jarisch reflex (1)  
Cardiac arrest neonatal (1)  
Cardiac valve fatty infiltration (1)  
Chronic right ventricular failure (1)  
Coronary artery perforation (1)  
Diabetic cardiomyopathy (1)  
Endocarditis fibroplastica (1)  
Ischaemic mitral regurgitation (1)  
Lupus myocarditis (1)  
Mitral valve disease mixed (1)  
Neonatal tachycardia (1)

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Nonreassuring foetal heart rate pattern (1)  
Obesity cardiomyopathy (1)  
Papillary muscle haemorrhage (1)  
Rebound tachycardia (1)  
Shoshin beriberi (1)  
Subvalvular aortic stenosis (1)  
Systolic anterior motion of mitral valve (1)  
Tricuspid valve thickening (1)  
Ventricular asystole (1)  
Ventricular hyperkinesia (1)  
Ventricular septal defect acquired (1)





## Flu

Palpitations (1 946)  
Tachycardia (1 759)  
Atrial fibrillation (503)  
Arrhythmia (330)  
Myocardial infarction (323)  
Pericarditis (317)  
Cardiac arrest (315)  
Bradycardia (256)  
Myocarditis (234)  
Cardiac failure (218)  
Angina pectoris (140)  
Cardiovascular disorder (140)  
Cardiac disorder (135)  
Pericardial effusion (124)  
Cardiac failure congestive (116)  
Sinus tachycardia (87)  
Acute myocardial infarction (86)  
Cardiomegaly (82)  
Cardio-respiratory arrest (82)  
Ventricular extrasystoles (81)  
Extrasystoles (77)  
Supraventricular tachycardia (75)  
Coronary artery disease (66)  
Cardiomyopathy (64)  
Atrial flutter (51)  
Cardiac flutter (51)

Mitral valve incompetence (51)  
Myocardial ischaemia (49)  
Myopericarditis (49)  
Ventricular fibrillation (48)  
Ventricular tachycardia (47)  
Right ventricular failure (38)  
Cardiogenic shock (30)  
Postural orthostatic tachycardia syndrome (30)  
Sinus bradycardia (30)  
Cardiac failure acute (28)  
Left ventricular failure (27)  
Left ventricular hypertrophy (27)  
Supraventricular extrasystoles (27)  
Atrioventricular block (24)  
Bundle branch block right (24)  
Tricuspid valve incompetence (24)  
Left ventricular dysfunction (23)  
Tachyarrhythmia (22)  
Arteriosclerosis coronary artery (20)  
Cardiac discomfort (19)  
Stress cardiomyopathy (19)  
Acute coronary syndrome (17)  
Cardiopulmonary failure (15)  
Diastolic dysfunction (15)  
Atrioventricular block complete (14)  
Atrioventricular block first degree (14)

Bundle branch block (14)  
Cardiac tamponade (14)  
Dilated cardiomyopathy (14)  
Pulseless electrical activity (12)  
Cardiovascular insufficiency (11)  
Pleuropericarditis (11)  
Aortic valve incompetence (10)  
Bundle branch block left (10)  
Pericardial disease (10)  
Tachycardia paroxysmal (10)  
Angina unstable (9)  
Atrioventricular block second degree (9)  
Cardiac fibrillation (9)  
Cardiac valve disease (9)  
Coronary artery occlusion (9)  
Coronary artery thrombosis (9)  
Mitral valve prolapse (9)  
Conduction disorder (8)  
Sinus arrhythmia (8)  
Systolic dysfunction (8)  
Arrhythmia supraventricular (7)  
Atrial tachycardia (7)  
Right ventricular dysfunction (7)  
Ventricular hypertrophy (7)  
Acute cardiac event (6)  
Dilatation ventricular (6)  
Left atrial dilatation (6)

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Mitral valve disease (6)  
Myocardial oedema (6)  
Pericardial haemorrhage (6)  
Sinus node dysfunction (6)  
Cardiac failure chronic (5)  
Carditis (5)  
Chronic left ventricular failure (5)  
Cor pulmonale (5)  
Hypertensive heart disease (5)  
Myocardial fibrosis (5)  
Sinus arrest (5)  
Ventricular arrhythmia (5)  
Ventricular hypokinesia (5)  
Bradyarrhythmia (4)  
Cardiac dysfunction (4)  
Cardiac hypertrophy (4)  
Myocardial injury (4)  
Acute left ventricular failure (3)  
Aortic valve disease (3)  
Aortic valve sclerosis (3)  
Cardiac asthma (3)  
Cardiorenal syndrome (3)  
Cardiovascular symptom (3)  
Coronary artery stenosis (3)  
Intracardiac thrombus (3)  
Mitral valve calcification (3)  
Pulmonary valve incompetence (3)

Ventricular dysfunction (3)  
Wolff-Parkinson-White syndrome (3)  
Adams-Stokes syndrome (2)  
Aortic valve calcification (2)  
Aortic valve stenosis (2)  
Arteriospasm coronary (2)  
Atrial enlargement (2)  
Bradycardia foetal (2)  
Cardiac septal hypertrophy (2)  
Endocarditis fibroplastica (2)  
Ischaemic cardiomyopathy (2)  
Mitral valve sclerosis (2)  
Nodal rhythm (2)  
Pericarditis lupus (2)  
Right atrial dilatation (2)  
Right ventricular dilatation (2)  
Right ventricular enlargement (2)  
Right ventricular hypertrophy (2)  
Tachycardia foetal (2)  
Torsade de pointes (2)  
Tricuspid valve disease (2)  
Ventricular flutter (2)  
Aortic valve thickening (1)  
Arrhythmic storm (1)  
Athletic heart syndrome (1)  
Atrial hypertrophy (1)  
Bifascicular block (1)

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Cardiac aneurysm (1)  
Cardiac contractility decreased (1)  
Cardiac valve sclerosis (1)  
Cardiac ventricular thrombosis (1)  
Cardio-respiratory distress (1)  
Cardiotoxicity (1)  
Cardiovascular deconditioning (1)  
Cor pulmonale acute (1)  
Coronary artery aneurysm (1)  
Coronary artery dilatation (1)  
Coronary artery embolism (1)  
Coronary artery insufficiency (1)  
Coronary ostial stenosis (1)  
Foetal heart rate deceleration abnormality (1)  
Foetal heart rate disorder (1)  
Gastrocardiac syndrome (1)  
Grey syndrome neonatal (1)  
Heart valve calcification (1)  
Heart valve incompetence (1)  
Hepatojugular reflux (1)  
Intracardiac mass (1)  
Kounis syndrome (1)  
Left atrial enlargement (1)  
Left ventricular dilatation (1)  
Long QT syndrome (1)  
Mitral valve disease mixed (1)  
Mitral valve stenosis (1)

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Mitral valve thickening (1)  
Myocardial rupture (1)  
Nodal arrhythmia (1)  
Non-obstructive cardiomyopathy (1)  
Nonreassuring foetal heart rate pattern (1)  
Paroxysmal arrhythmia (1)  
Pericarditis constrictive (1)  
Pulmonary valve stenosis (1)  
Right atrial enlargement (1)  
Right atrial hypertrophy (1)  
Sinoatrial block (1)  
Tricuspid valve calcification (1)  
Ventricular enlargement (1)  
Ventricular failure (1)