**EVENT DEFINITION FORM**

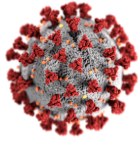
Event: Myocarditis /pericarditis
Outcome/covariate: outcome
Version: 1
Status: final

Contributing authors

Authors	Role	Date
Miriam Sturkenboom	Code mapping	
Corinne Willame	Algorithm proposal	02-09-2020
Miriam Sturkenboom	Final codes	14-2-2021
Carlos Durán	Rev. narrow/possible assignment	25-03-2021
Miriam Sturkenboom	Inclusion of codes for final analysis & inclusion of SPEAC Brighton Collaboration pictorial diagrams	09-08-2021

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Myocarditis

Inflammatory disease of the heart muscle, diagnosed by established histological, immunological, and immunohistochemical criteria [1]. Myocarditis is an inflammatory disease of the myocardium caused by different infectious (viral and nonviral) and non-infectious triggers (autoimmune diseases, hypersensitivity reactions to drugs, toxic reactions to drugs, toxics, etc.) [2]. Myocarditis often results from common viral infections and post-viral immune-mediated responses [2].

According to the [draft Brighton Collaboration pictorial algorithm¹](#) myocarditis would be certified as :

¹ <https://brightoncollaboration.us/myocarditis-case-definition-update/>

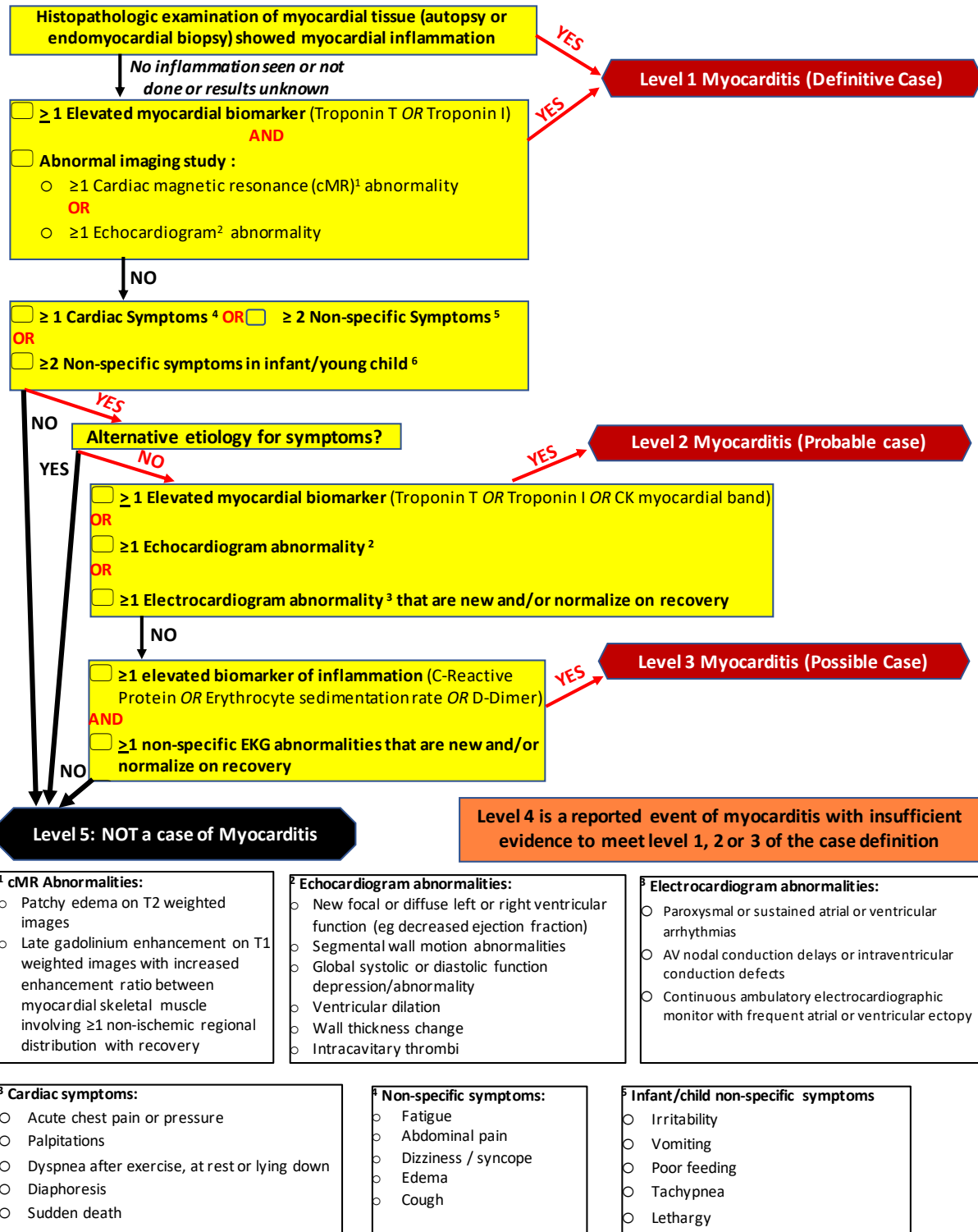
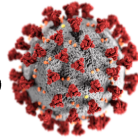
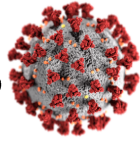


Figure 1: Draft SPEAC/ Brighton Collaboration Myocarditis Pictorial diagram (from <https://brightoncollaboration.us/myocarditis-case-definition-update/>)



Pericarditis

Pericarditis is the inflammation of the pericardium from various origins, such as infection, neoplasm, autoimmune process, injuries, or drug-induced. Pericarditis usually leads to pericardial effusion, or constrictive pericarditis [3].

According to the [BC pictorial diagrams](#) for determining certainty²

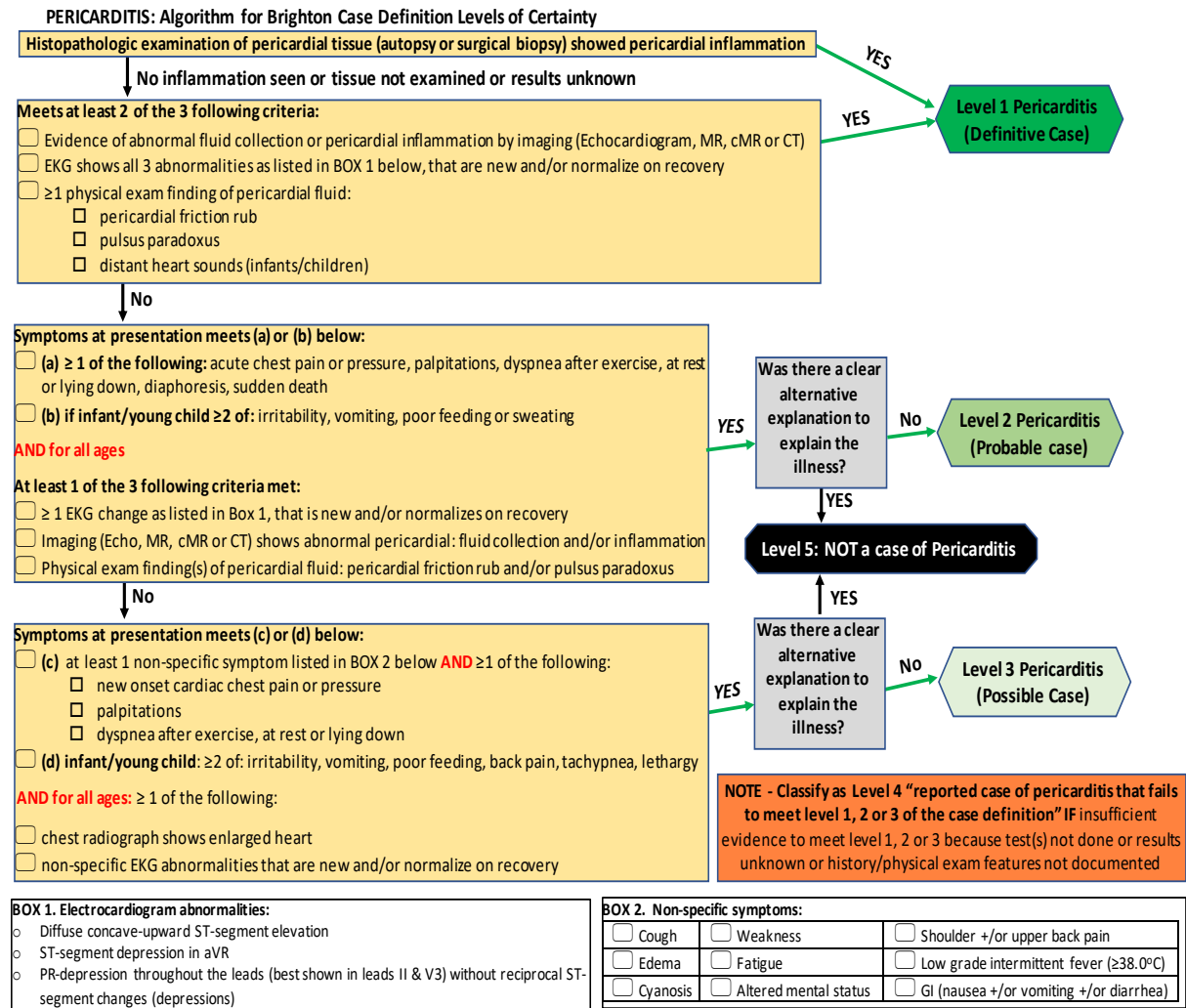


Figure 2 : SPEAC/Brighton Collaboration Pericarditis Pictorial diagram (¹ from

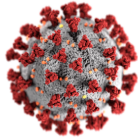
<https://brightoncollaboration.us/myocarditis-case-definition-update/>

2. Synonyms / lay terms used

Myocarditis

Inflammation - heart muscle [4]; heart muscle inflammation (ICD-9); inflammation of myocardium.

² <https://brightoncollaboration.us/myocarditis-case-definition-update/>



Pericarditis

Inflammation of pericardium; pericardial inflammation; inflammation of heart sac (ICD-9); inflamed covering of heart (ICD-9).

3. Laboratory tests done specific for event

Myocarditis

Myocarditis is suggested by non-pleuritic pain, a rise in cardiac enzymes, conduction abnormalities, arrhythmias, or cardiac dysfunction on imaging, which might be evident only after drainage of an accompanying effusion [5, 6].

Biomarkers: troponins or creatine kinase (lack specificity, but may help to confirm the diagnosis of myocarditis). Leukocytes and C-reactive protein can be elevated (but normal values do not exclude an acute myocardial inflammatory process).

Virus serology: the utility remains unproven and should not be commonly used for the diagnosis of myocardial infection in patients with suspected myocarditis.

Antibody assays: interpretation of antibodies is complicated due to reinfections (example herpesvirus infections) or cross-reactions with Epstein-Barr virus or enterovirus.

Pericarditis

The diagnosis of acute pericarditis is a clinical diagnosis based on proper history and the presence of typical symptoms of chest pain, pericardial rub (it is pathognomonic for pericarditis, but is frequently not present) and characteristic electrocardiographic changes.

Biomarkers:

Troponin I may be raised reflecting myocardial involvement [5].

Pericardial-fluid measurement of glucose, protein, and lactic dehydrogenase, adenosine deaminase, cell count, microscopy (including gram and Ziehl-Nielsen stain), bacterial (and occasionally viral) culture, and cytological examination.

Immunohistochemistry techniques: antibodies in immune-mediated pericarditis;

Carcinoembryonic antigen concentrations in neoplastic.

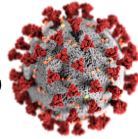
Other laboratory tests may include [5, 7]:

- Antinuclear antibody (ANA)
- Blood culture
- Complete Blood Count (CBC)
- C-reactive protein
- Erythrocyte sedimentation rate (ESR)
- Rheumatoid factor

Leucocytosis, raised C-reactive protein concentration, and sedimentation rate are common findings.

Virus serology:

Tuberculin skin test and Viral studies (HIV test, etc).



Serological studies might confirm the cause as infectious or autoimmune pericarditis, but are rarely of clinical relevance.[5]

4. Diagnostic tests done specific for event

Myocarditis

The diagnosis of myocarditis based on the clinical presentation alone is usually not possible.

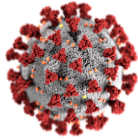
- Electrocardiogram [2].
- Echocardiography [2]: There are no specific echocardiographic features of myocarditis but it is one of the most important tools to rule out other causes of HF.
- Cardiovascular magnetic resonance (CMR) [2]: the most appropriate non-invasive approach.
- Endomyocardial biopsy (EMB) [2]: it is the gold standard in diagnosis of myocarditis. However, because of the lack of available facilities and clinical experience, EMB appears to be infrequently used to diagnose myocarditis. Then, immunohistochemical techniques, PCR and in situ hybridization techniques from EMB can be performed.
- Chest x-ray [4]: MedlinePlus includes also chest x-ray tests to diagnose myocarditis.

Pericarditis

The following imaging tests may be done to check the heart and the pericardium [7, 8]:

- Chest Magnetic Resonance Imaging (MRI) scan
- Heart MRI or heart computed tomography (CT) scan
- Radionuclide scanning
- Chest x-ray: is frequently normal, but cardiomegaly can be seen in patients who have substantial pericardial effusion.
- Echocardiogram: non-invasive assessment of pericardial and cardiac morphology and the physiological importance of complications
- Trans-oesophageal echo
- Intracardiac echo
- Electrocardiogram: is perhaps the most useful diagnostic test for acute pericarditis
- Tissue doppler imaging
- Colour M-mode of early left-ventricular flow propagation.
- Pericardial biopsy if malignant or granulomatous causes are suspected
- PCR techniques can identify causative viruses and M tuberculosis from pericardial fluid or tissue.

Further assessment is required in order to know whether these procedures can be used as proxies to identify myocarditis/pericarditis.



5. Drugs used specific for event treatment

Myocarditis

Specific treatment [2]:

Specific treatment options for viral myocarditis are not established yet, so treatment is symptomatic and based on the clinical presentation.

Specific types of autoimmune myocarditis are treated with immunosuppression, for example:

- giant cell myocarditis: combined treatment with immunosuppressants (cyclosporine and corticosteroids with or without azathioprine or muronomab CD4s).
- cardiac sarcoidosis: early immunosuppressive therapy with high-dose corticosteroids (17).

Immunosuppressants or corticosteroid cannot be a proxy to identify myocarditis

Heart failure therapy [2]:

Pharmacological treatment of HF should be initiated according to the current guidelines.

Standard HF regime includes beta-blockers, diuretics, angiotensin-converting enzyme (ACE) inhibitors or angiotensin-II receptor blockers (ARBs), aldosterone agonists, cardiac glycosides or calcium-channel blockers.

HF treatment can not be a proxy to identify myocarditis.

NSAIDs and colchicine [2]:

There is no indication for application of NSAIDs and colchicine in patients with myocarditis

Pericarditis

Specific treatment - Antimicrobial treatment:

If a specific cause is identified, treatment should target the underlying cause (antimicrobial treatment) [5]. Antimicrobial treatment cannot be a proxy to identify pericarditis.

Anti-inflammatory treatment:

Non-steroidal anti-inflammatory drugs (NSAIDs) and colchicine (for recurrent pericarditis) [5, 9].

The use of corticosteroid treatment is controversial. Indicated for pericarditis with effusion due to M tuberculosis, in which it reduces the incidence of constriction.

Anti-inflammatory treatment cannot be a proxy to identify pericarditis.

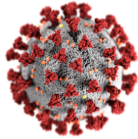
6. Procedures used specific for event treatment

Myocarditis

The benefit of following procedures should be considered [2]:

1. pacemaker,
2. implantable cardiac defibrillator,
3. mechanical circulatory support and
4. heart transplantation.

These procedures can not be proxies to identify myocarditis.



Pericarditis

The benefit of following procedures should be considered [5]:

1. Intrapericardial administration of steroids.
2. Pericardioscopy for direct instillation of treatments into the pericardial space.
3. Pericardial drainage.
4. Subdiaphragmatic laparoscopic technique, video-assisted thoracoscopic technique, and pericardioscopy to easy drainage of effusion.
5. Pericardiocentesis.
6. Cardiac catheterisation during pericardiocentesis.
7. Balloon pericardial window formation.
8. Instillation of sclerosing agents. Instillation of fibrinolytic agents.
9. Pericardiectomy.
10. Further assessment is required in order to know whether these procedures can be used as proxies to identify myocarditis/pericarditis.

7. Setting (outpatient specialist, in-hospital, GP, emergency room) where condition will be most frequently /reliably diagnosed

Outpatient specialist, hospital

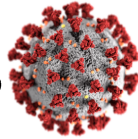
8. Diagnosis codes or algorithms used in different papers to extract the events in Europe/USA

Data from PRISM (A systematic review of validated methods to capture myopericarditis using administrative or claims data, <https://doi.org/10.1016/j.vaccine.2013.08.074>).

Nine publications (including one study reported in two publications) met criteria for inclusion. Two studies performed medical record review in order to confirm that these coding algorithms actually captured patients with the disease of interest. One of these studies identified five potential cases, none of which were confirmed as acute myocarditis upon review. The other study, which employed a search algorithm based on diagnostic surveillance (using ICD-9 codes 420.90, 420.99, 422.90, 422.91 and 429.0) and sentinel reporting, identified 59 clinically confirmed cases of myopericarditis among 492,671 United States military service personnel who received smallpox vaccine between 2002 and 2003. Neither study provided algorithm validation statistics (positive predictive value, sensitivity, or specificity).

Conclusions

A validated search algorithm is currently unavailable for identifying incident cases of pericarditis or myocarditis. Several authors have published unvalidated ICD-9-based search algorithms that appear to capture myocarditis events occurring in the context of other underlying cardiac or autoimmune conditions.



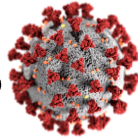
9. Experience of participating data sources in extracting the events prior to ACCESS

None provided

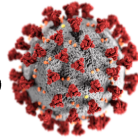
10. Proposed codes by Codemapper

Myocarditis alone (no pericarditis)

Coding system	Code	Code name	Concept	Algorithm
ICD10/CM	I40	Acute myocarditis	C0155686	Narrow
ICD10/CM	I41	Myocarditis in disease specified elsewhere		narrow
ICD10/CM	I51.4	Myocarditis, unspecified	C0027059	Narrow
ICD9CM	422	Acute myocarditis	C0155686	Narrow
ICD9CM	422.0	Acute myocarditis in diseases classified elsewhere	C0155687	Narrow
ICD9CM	422.9	Other and unspecified acute myocarditis	C0155692	Narrow
ICD9CM	422.90	Acute myocarditis, unspecified	C0155686	Narrow
ICD9CM	422.99	Other acute myocarditis	C0155692	Narrow
ICD9CM	429.0	Myocarditis, unspecified	C0027059	Narrow
ICPC	K70	Infectious disease heart		Narrow
RCD	G52..	Acute myocarditis	C0155686	Narrow
RCD	G520.	Acute myocarditis + disease EC	C0155687	Narrow
RCD	G520z	Acute myocarditis + dis.EC NOS	C0155687	Narrow
RCD	G52y.	Other acute myocarditis	C0155692	Narrow
RCD	G52y0	Acute myocarditis, unspecified	C0155686	Narrow
RCD	G52yz	Other acute myocarditis NOS	C0155692	Narrow
RCD	G52z.	Acute myocarditis NOS	C0155686	Narrow
RCD	G5y0.	Myocarditis NOS	C0027059	Narrow
RCD	Gyu5F	[X]Other acute myocarditis	C0155692	Narrow
RCD	Gyu5G	[X]Acute myocarditis,unspcfd	C0155686	Narrow
RCD	Gyu5H	[X]Myocarditis in bacterial diseases classified elsewhere	C0348611	Narrow
RCD	Gyu5J	[X]Myocarditis in viral diseases classified elsewhere	C0348612	Narrow
RCD	Gyu5K	[X]Myocarditis in other infectious and parasitic diseases classified elsewhere	C0348613	Narrow
RCD	Gyu5L	[X]Myocarditis in other diseases classified elsewhere	C0348614	Narrow
RCD	X779D	Myocardial inflammation	C0027059	Narrow
RCD	XaDyL	Myocarditis	C0027059	Narrow
RCD2	G52..	Acute myocarditis + disease EC	C0155687	Narrow



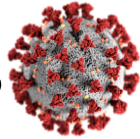
RCD2	G520z	Acute myocarditis + dis.EC NOS	C0155687	Narrow
RCD2	G52y.	Other acute myocarditis	C0155692	Narrow
RCD2	G52yz	Other acute myocarditis NOS	C0155692	Narrow
RCD2	G5y0.	Myocarditis NOS	C0027059	Narrow
RCD2	Gyu5F	[X]Other acute myocarditis	C0155692	Narrow
RCD2	Gyu5H	[X]Myocrditis/bacterial dis CE	C0348611	Narrow
RCD2	Gyu5J	[X]Myocarditis/viral dis CE	C0348612	Narrow
RCD2	Gyu5K	[X]Myocarditis/o inf+para d CE	C0348613	Narrow
RCD2	Gyu5L	[X]Myocarditis/oth diseases CE	C0348614	Narrow
SCTSPA	46701001	miocarditis aguda	C0155686	Narrow
SCTSPA	50920009	miocarditis	C0027059	Narrow
SCTSPA	155380004	miocarditis, SAI	C0027059	Narrow
SCTSPA	194942007	miocarditis aguda en enfermedades clasificadas en otra parte	C0155687	Narrow
SCTSPA	194951004	miocarditis aguda en enfermedades clasificadas en otra parte, SAI	C0155687	Narrow
SCTSPA	194952006	otras miocarditis agudas	C0155692	Narrow
SCTSPA	194953001	miocarditis aguda, no especificada	C0155686	Narrow
SCTSPA	194960007	otra miocarditis aguda, SAI	C0155692	Narrow
SCTSPA	194961006	miocarditis aguda, SAI	C0155686	Narrow
SCTSPA	195119007	miocarditis, SAI	C0027059	Narrow
SCTSPA	195568002	[X]otra miocarditis aguda	C0155692	Narrow
SCTSPA	195569005	[X]miocarditis aguda, no especificada	C0155686	Narrow
SCTSPA	195570006	[X]miocarditis en enfermedades bacterianas clasificadas en otra parte	C0348611	Narrow
SCTSPA	195571005	[X]miocarditis en enfermedades virales clasificadas en otra parte	C0348612	Narrow
SCTSPA	195572003	[X]miocarditis en otras enfermedades infecciosas y parasitarias clasificadas en otra parte	C0348613	Narrow
SCTSPA	195573008	[X]miocarditis en otras enfermedades clasificadas en otra parte	C0348614	Narrow
SCTSPA	251060004	inflamación miocárdica	C0027059	Narrow
SCTSPA	723863003	Myopericarditis (disorder)		narrow
SCTSPA	11176009	Acute myopericarditis (disorder)		narrow
SCTSPA	22653005	Myocarditis due to infectious agent (disorder)		narrow
SCTSPA	89141000	Viral myocarditis (disorder)		narrow
SCTSPA	723863003	Myopericarditis (disorder)		narrow
SCTSPA	11176009	Acute myopericarditis (disorder)		narrow
SNOMEDCT_US	46701001	Acute myocarditis	C0155686	Narrow
SNOMEDCT_US	50920009	Myocarditis	C0027059	Narrow
SNOMEDCT_US	50920009	Myocarditis NOS		narrow
SNOMEDCT_US	50920009	Myocarditis NOS		narrow
SNOMEDCT_US	50920009	[X]Myocarditis in other diseases classified elsewhere		narrow



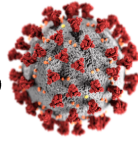
SNOMEDCT_US	155336004	Acute myocarditis	C0155686	Narrow
SNOMEDCT_US	155380004	Myocarditis NOS	C0027059	Narrow
SNOMEDCT_US	194942007	Acute myocarditis in diseases EC	C0155687	Narrow
SNOMEDCT_US	194951004	Acute myocarditis in diseases EC, NOS	C0155687	Narrow
SNOMEDCT_US	194952006	Other acute myocarditis	C0155692	Narrow
SNOMEDCT_US	194953001	Acute myocarditis, unspecified	C0155686	Narrow
SNOMEDCT_US	194960007	Other acute myocarditis NOS	C0155692	Narrow
SNOMEDCT_US	194961006	Acute myocarditis NOS	C0155686	Narrow
SNOMEDCT_US	195119007	Myocarditis NOS	C0027059	Narrow
SNOMEDCT_US	195568002	[X]Other acute myocarditis	C0155692	Narrow
SNOMEDCT_US	195569005	[X]Acute myocarditis, unspecified	C0155686	Narrow
SNOMEDCT_US	195570006	[X]Myocarditis in bacterial diseases classified elsewhere	C0348611	Narrow
SNOMEDCT_US	195571005	[X]Myocarditis in viral diseases classified elsewhere	C0348612	Narrow
SNOMEDCT_US	195572003	[X]Myocarditis in other infectious and parasitic diseases classified elsewhere	C0348613	Narrow
SNOMEDCT_US	195573008	[X]Myocarditis in other diseases classified elsewhere	C0348614	Narrow
SNOMEDCT_US	251060004	Myocardial inflammation	C0027059	Narrow

Myocarditis or pericarditis

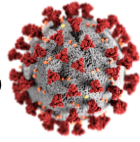
Coding system	Code	Code name	Concept	Algorithm
ICD10/CM	I30	Acute pericarditis	C0155679	Narrow
ICD10/CM	I32	Pericarditis in diseases classified elsewhere	C0694496	Narrow
ICD10/CM	I40	Acute myocarditis	C0155686	Narrow
ICD10/CM	I41	Myocarditis in disease specified elsewhere		narrow
ICD10/CM	I51.4	Myocarditis, unspecified	C0027059	Narrow
ICD9CM	420	Acute pericarditis	C0155679	Narrow
ICD9CM	422	Acute myocarditis	C0155686	Narrow



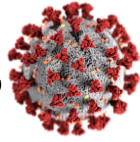
ICD9CM	422.0	Acute myocarditis in diseases classified elsewhere	C0155687	Narrow
ICD9CM	422.9	Other and unspecified acute myocarditis	C0155692	Narrow
ICD9CM	422.90	Acute myocarditis, unspecified	C0155686	Narrow
ICD9CM	422.99	Other acute myocarditis	C0155692	Narrow
ICD9CM	423.2	Constrictive pericarditis	C0031048	Narrow
ICD9CM	423.9	Unspecified disease of pericardium	C0265122	Possible
ICD9CM	429.0	Myocarditis, unspecified	C0027059	Narrow
ICPC	K70	Infectious disease heart		Narrow
ICPC2P	K70002	Myocarditis;acute	C0155686	Narrow
ICPC2P	K70003	Pericarditis;acute	C0155679	Narrow
ICPC2P	K84010	Disease;pericardium	C0265122	Possible
RCD	G50z0	Acute pericarditis - unspecified	C0155679	Narrow
RCD	G50zz	Acute pericarditis NOS	C0155679	Narrow
RCD	G52..	Acute myocarditis	C0155686	Narrow
RCD	G520.	Acute myocarditis + disease EC	C0155687	Narrow
RCD	G520z	Acute myocarditis + dis.EC NOS	C0155687	Narrow
RCD	G52y.	Other acute myocarditis	C0155692	Narrow
RCD	G52y0	Acute myocarditis, unspecified	C0155686	Narrow
RCD	G52yz	Other acute myocarditis NOS	C0155692	Narrow
RCD	G52z.	Acute myocarditis NOS	C0155686	Narrow
RCD	G532.	Constrictive pericarditis	C0031048	Narrow
RCD	G532z	Constrictive pericarditis NOS	C0031048	Narrow
RCD	G5y0.	Myocarditis NOS	C0027059	Narrow
RCD	Gyu50	[X]Other forms of acute pericarditis	C0348597	Narrow
RCD	Gyu52	[X]Pericarditis/bacterl dis CE	C0348598	Narrow
RCD	Gyu53	[X]Pericarditis in other infectious and parasitic diseases classified elsewhere	C0348599	Narrow
RCD	Gyu54	[X]Pericarditis in other diseases classified elsewhere	C0348600	Narrow
RCD	Gyu5F	[X]Other acute myocarditis	C0155692	Narrow
RCD	Gyu5G	[X]Acute myocarditis,unspcfd	C0155686	Narrow
RCD	Gyu5H	[X]Myocarditis in bacterial diseases classified elsewhere	C0348611	Narrow
RCD	Gyu5J	[X]Myocarditis in viral diseases classified elsewhere	C0348612	Narrow



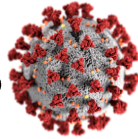
RCD	Gyu5K	[X]Myocarditis in other infectious and parasitic diseases classified elsewhere	C0348613	Narrow
RCD	Gyu5L	[X]Myocarditis in other diseases classified elsewhere	C0348614	Narrow
RCD	X201i	Disorder of pericardium	C0265122	Possible
RCD	X201j	Pericarditis	C0031046	Narrow
RCD	X779D	Myocardial inflammation	C0027059	Narrow
RCD	XaDyL	Myocarditis	C0027059	Narrow
RCD	XEOUp	Acute pericarditis	C0155679	Narrow
RCD2	G50..			Narrow
RCD2	G52..	Acute myocarditis + disease EC	C0155687	Narrow
RCD2	G520z	Acute myocarditis + dis.EC NOS	C0155687	Narrow
RCD2	G52y.	Other acute myocarditis	C0155692	Narrow
RCD2	G52yz	Other acute myocarditis NOS	C0155692	Narrow
RCD2	G53..	Other diseases of pericardium	C0265122	Possible
RCD2	G5y0.	Myocarditis NOS	C0027059	Narrow
RCD2	Gyu50	[X]Oth forms/acut pericarditis	C0348597	Narrow
RCD2	Gyu52	[X]Pericarditis/bacterl dis CE	C0348598	Narrow
RCD2	Gyu53	[X]Pericardit/o inf+paras d CE	C0348599	Narrow
RCD2	Gyu54	[X]Pericarditis/oth disease CE	C0348600	Narrow
RCD2	Gyu5F	[X]Other acute myocarditis	C0155692	Narrow
RCD2	Gyu5H	[X]Myocrditis/bacterial dis CE	C0348611	Narrow
RCD2	Gyu5J	[X]Myocarditis/viral dis CE	C0348612	Narrow
RCD2	Gyu5K	[X]Myocarditis/o inf+para d CE	C0348613	Narrow
RCD2	Gyu5L	[X]Myocarditis/oth diseases CE	C0348614	Narrow
SCTSPA	3238004	pericarditis	C0031046	Narrow
SNOMEDCT_US	3238004	Pericarditis	C0031046	Narrow
SCTSPA	15555002	pericarditis aguda	C0155679	Narrow
SNOMEDCT_US	15555002	Acute pericarditis	C0155679	Narrow
SNOMEDCT_US	15555002	Acute pericarditis		narrow
SNOMEDCT_US	15555002	Acute pericarditis in diseases EC NOS		narrow
SNOMEDCT_US	15555002	Other and unspecified acute pericarditis		narrow



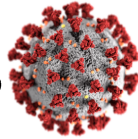
SNOMEDCT_US	15555002	Acute pericarditis - unspecified		narrow
SNOMEDCT_US	15555002	Acute pericarditis NOS		narrow
SNOMEDCT_US	15555002	[X]Other forms of acute pericarditis		narrow
SNOMEDCT_US	22167000	Pyopericardium		possible
SNOMEDCT_US	23412002	Haemopericardium		possible
SNOMEDCT_US	23412002	Hemopericardium		possible
SNOMEDCT_US	23412002	Haematopericardium		possible
SNOMEDCT_US	23412002	Haemopericardium		possible
SNOMEDCT_US	23627006	Chronic pericarditis		possible
SNOMEDCT_US	35304003	Cardiac tamponade		possible
SNOMEDCT_US	35304003	Cardiac tamponade		possible
SNOMEDCT_US	37715009	Adhesive pericarditis		narrow
SNOMEDCT_US	37715009	Adhesive pericarditis		narrow
SNOMEDCT_US	37715009	Adhesive pericarditis NOS		narrow
SNOMEDCT_US	37980001	Concato's disease		possible
SNOMEDCT_US	37980001	Progressive malignant polyserositis		possible
SNOMEDCT_US	37980001	Concato's disease		possible
SNOMEDCT_US	42653000	Calcification of pericardium		possible
SCTSPA	46701001	miocarditis aguda	C0155686	Narrow
SNOMEDCT_US	46701001	Acute myocarditis	C0155686	Narrow
SCTSPA	50920009	miocarditis	C0027059	Narrow
SNOMEDCT_US	50920009	Myocarditis	C0027059	Narrow
SNOMEDCT_US	50920009	Myocarditis NOS		narrow
SNOMEDCT_US	50920009	Myocarditis NOS		narrow



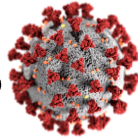
SNOMEDCT_US	50920009	[X]Myocarditis in other diseases classified elsewhere		narrow
SCTSPA	55855009	trastorno del pericardio	C0265122	Possible
SNOMEDCT_US	55855009	Disorder of pericardium	C0265122	Possible
SNOMEDCT_US	55855009	Other diseases of pericardium		Possible
SNOMEDCT_US	55855009	Other diseases of pericardium		Possible
SNOMEDCT_US	55855009	Other diseases of pericardium OS		Possible
SNOMEDCT_US	55855009	Other specified pericardial disease NOS		Possible
SNOMEDCT_US	55855009	Other pericardial disease NOS		Possible
SNOMEDCT_US	55855009	[X]Other specified diseases of pericardium		Possible
SNOMEDCT_US	57231008	Pericardial effusion - acute		Possible
SNOMEDCT_US	57231008	Pericardial effusion - acute		Possible
SNOMEDCT_US	60254004	Fistula of pericardium		Possible
SNOMEDCT_US	70189005	Viral pericarditis NOS		narrow
SCTSPA	85598007	pericarditis constrictiva	C0031048	Narrow
SNOMEDCT_US	85598007	Constrictive pericarditis	C0031048	Narrow
SNOMEDCT_US	85598007	Constrictive pericarditis		narrow
SNOMEDCT_US	85598007	Pick disease of heart		possible
SNOMEDCT_US	85598007	Constrictive pericarditis		narrow
SNOMEDCT_US	85598007	Pick's disease of heart		possible
SNOMEDCT_US	85598007	Constrictive pericarditis NOS		narrow
SNOMEDCT_US	155333007	Acute pericarditis	C0155679	Narrow
SNOMEDCT_US	155336004	Acute myocarditis	C0155686	Narrow
SNOMEDCT_US	155340008	Constrictive pericarditis	C0031048	Narrow
SNOMEDCT_US	155341007	Pericardial disease NOS	C0265122	Possible
SCTSPA	155380004	miocarditis, SAI	C0027059	Narrow



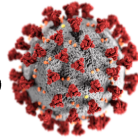
SNOMEDCT_US	155380004	Myocarditis NOS	C0027059	Narrow
SNOMEDCT_US	194902002	Acute pericarditis	C0155679	Narrow
SNOMEDCT_US	194903007	Acute pericarditis in diseases EC		narrow
SNOMEDCT_US	194903007	Acute pericarditis associated with another disorder		narrow
SNOMEDCT_US	194903007	Acute pericarditis in diseases EC		narrow
SNOMEDCT_US	194905000	Acute pericarditis - coxsackie		narrow
SNOMEDCT_US	194905000	Acute pericarditis - coxsackie		narrow
SNOMEDCT_US	194906004	Acute pericarditis - meningococcal		narrow
SNOMEDCT_US	194906004	Acute pericarditis - meningococcal		narrow
SNOMEDCT_US	194907008	Acute pericarditis - syphilitic		narrow
SNOMEDCT_US	194907008	Acute pericarditis - syphilitic		narrow
SNOMEDCT_US	194908003	Acute pericarditis - tuberculous		narrow
SNOMEDCT_US	194908003	Acute pericarditis - tuberculous		narrow
SNOMEDCT_US	194908003	TB - acute pericarditis		narrow
SNOMEDCT_US	194909006	Acute pericarditis - uraemic		narrow
SNOMEDCT_US	194909006	Acute pericarditis secondary to uraemia		narrow
SNOMEDCT_US	194909006	Acute pericarditis co-occurrent and due to uremia		narrow
SNOMEDCT_US	194909006	Acute pericarditis secondary to uremia		narrow
SNOMEDCT_US	194909006	Acute pericarditis co-occurrent and due to uraemia		narrow
SNOMEDCT_US	194909006	Acute pericarditis - uraemic		narrow
SNOMEDCT_US	194910001	Acute pericarditis - gonococcal		narrow
SNOMEDCT_US	194910001	Acute pericarditis - gonococcal		narrow
SCTSPA	194914005	pericarditis aguda no especificada	C0155679	Narrow



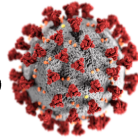
SNOMEDCT_US	194914005	Acute pericarditis - unspecified	C0155679	Narrow
SNOMEDCT_US	194916007	Acute pericarditis - pneumococcal		narrow
SNOMEDCT_US	194916007	Acute pericarditis - pneumococcal		narrow
SNOMEDCT_US	194917003	Acute pericarditis - staphylococcal		narrow
SNOMEDCT_US	194917003	Acute pericarditis - staphylococcal		narrow
SNOMEDCT_US	194918008	Acute pericarditis - streptococcal		narrow
SNOMEDCT_US	194918008	Acute pericarditis - streptococcal		narrow
SCTSPA	194920006	pericarditis aguda, SAI	C0155679	Narrow
SNOMEDCT_US	194920006	Acute pericarditis NOS	C0155679	Narrow
SCTSPA	194942007	miocarditis aguda en enfermedades clasificadas en otra parte	C0155687	Narrow
SNOMEDCT_US	194942007	Acute myocarditis in diseases EC	C0155687	Narrow
SCTSPA	194951004	miocarditis aguda en enfermedades clasificadas en otra parte, SAI	C0155687	Narrow
SNOMEDCT_US	194951004	Acute myocarditis in diseases EC, NOS	C0155687	Narrow
SCTSPA	194952006	otras miocarditis agudas	C0155692	Narrow
SNOMEDCT_US	194952006	Other acute myocarditis	C0155692	Narrow
SCTSPA	194953001	miocarditis aguda, no especificada	C0155686	Narrow
SNOMEDCT_US	194953001	Acute myocarditis, unspecified	C0155686	Narrow
SCTSPA	194960007	otra miocarditis aguda, SAI	C0155692	Narrow
SNOMEDCT_US	194960007	Other acute myocarditis NOS	C0155692	Narrow
SCTSPA	194961006	miocarditis aguda, SAI	C0155686	Narrow
SNOMEDCT_US	194961006	Acute myocarditis NOS	C0155686	Narrow
SNOMEDCT_US	194964003	Pericardial 'milk spots'		possible
SNOMEDCT_US	194964003	Pericardial 'milk spots'		possible
SNOMEDCT_US	194965002	Fibrosis of pericardium		possible
SCTSPA	194969008	pericarditis constrictiva, SAI	C0031048	Narrow



SNOMEDCT_US	194969008	Constrictive pericarditis NOS	C0031048	Narrow
SNOMEDCT_US	194970009	Pericardial effusion - noninflammatory		possible
SCTSPA	195119007	miocarditis, SAI	C0027059	Narrow
SNOMEDCT_US	195119007	Myocarditis NOS	C0027059	Narrow
SCTSPA	195552008	[X]otras formas de pericarditis aguda	C0348597	Narrow
SNOMEDCT_US	195552008	[X]Other forms of acute pericarditis	C0348597	Narrow
SCTSPA	195554009	[X]pericarditis en enfermedades bacterianas clasificadas en otra parte	C0348598	Narrow
SNOMEDCT_US	195554009	[X]Pericarditis in bacterial diseases classified elsewhere	C0348598	Narrow
SCTSPA	195555005	[X]pericarditis en otras enfermedades infecciosas y parasitarias clasificadas en otra parte	C0348599	Narrow
SNOMEDCT_US	195555005	[X]Pericarditis in other infectious and parasitic diseases classified elsewhere	C0348599	Narrow
SCTSPA	195556006	[X]pericarditis en otras enfermedades clasificadas en otra parte	C0348600	Narrow
SNOMEDCT_US	195556006	[X]Pericarditis in other diseases classified elsewhere	C0348600	Narrow
SCTSPA	195568002	[X]otra miocarditis aguda	C0155692	Narrow
SNOMEDCT_US	195568002	[X]Other acute myocarditis	C0155692	Narrow
SCTSPA	195569005	[X]miocarditis aguda, no especificada	C0155686	Narrow
SNOMEDCT_US	195569005	[X]Acute myocarditis, unspecified	C0155686	Narrow
SCTSPA	195570006	[X]miocarditis en enfermedades bacterianas clasificadas en otra parte	C0348611	Narrow
SNOMEDCT_US	195570006	[X]Myocarditis in bacterial diseases classified elsewhere	C0348611	Narrow
SCTSPA	195571005	[X]miocarditis en enfermedades virales clasificadas en otra parte	C0348612	Narrow
SNOMEDCT_US	195571005	[X]Myocarditis in viral diseases classified elsewhere	C0348612	Narrow
SCTSPA	195572003	[X]miocarditis en otras enfermedades infecciosas y	C0348613	Narrow



		parasitarias clasificadas en otra parte		
SNOMEDCT_US	195572003	[X]Myocarditis in other infectious and parasitic diseases classified elsewhere	C0348613	Narrow
SCTSPA	195573008	[X]miocarditis en otras enfermedades clasificadas en otra parte	C0348614	Narrow
SNOMEDCT_US	195573008	[X]Myocarditis in other diseases classified elsewhere	C0348614	Narrow
SNOMEDCT_US	233883000	Acute purulent pericarditis unspecified		narrow
SNOMEDCT_US	233883000	Acute purulent pericarditis unspecified		narrow
SNOMEDCT_US	233885007	Post infarction pericarditis		narrow
SNOMEDCT_US	233885007	Pericarditis following myocardial infarction		narrow
SNOMEDCT_US	233885007	Post infarction pericarditis		narrow
SCTSPA	251060004	inflamación miocárdica	C0027059	Narrow
SNOMEDCT_US	251060004	Myocardial inflammation	C0027059	Narrow
SNOMEDCT_US	266235007	Acute idiopathic pericarditis		narrow
SNOMEDCT_US	266235007	Acute idiopathic pericarditis		narrow
SNOMEDCT_US	266295005	Pericardial disease NOS	C0265122	Possible
SNOMEDCT_US	373945007	Pericardial effusion		possible
SNOMEDCT_US	373945007	Pericardial effusion		possible
SNOMEDCT_US	391179008	Non-traumatic pneumopericardium		possible
SNOMEDCT_US	842701000000106	Chronic pericardial effusion		possible
SCTSPA	723863003	Myopericarditis (disorder)		narrow
SCTSPA	233881003	Acute infective pericarditis (disorder)		narrow
SCTSPA	11176009	Acute myopericarditis (disorder)		narrow
SCTSPA	40959008	Acute viral pericarditis (disorder)		narrow
SCTSPA	17668000	Acute pleuropericarditis (disorder)		narrow



SCTSPA	177291008	Acute effusive pericarditis (disorder)		narrow
SCTSPA	22653005	Myocarditis due to infectious agent (disorder)		narrow
SCTSPA	41739008	Infectious pericarditis (disorder)		narrow
SCTSPA	89141000	Viral myocarditis (disorder)		narrow
SCTSPA	86504008	Subacute pericarditis (disorder)		narrow
SCTSPA	81376009	Non-infectious pericarditis (disorder)		narrow
SCTSPA	723863003	Myopericarditis (disorder)		narrow
SCTSPA	11176009	Acute myopericarditis (disorder)		narrow

11. Algorithm proposal

Broad algorithm myocarditis/pericarditis:

- All concept sets = (Myocarditis, Pericarditis, Pericardium_disorders) in any provenance, no prior codes
- Index date: first occurrence of any of these concept sets

Narrow algorithm Myocarditis alone:

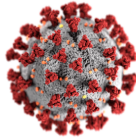
- Concept set = Myocarditis) in any provenance (no prior codes)
- Index date: first occurrence of any of these concept sets

Narrow algorithm Myocardiitis/pericarditis

- Concept set = Myocarditis, pericarditis narrow) in any provenance (no prior codes)
- Index date: first occurrence of any of these concept sets

12. References

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