Supplementary Material*

Zheng C, Duffy J, Liu IA, et al. Risk for shoulder conditions after vaccination. A population-based study using real-world data. Ann Intern Med. 22 March 2022. [Epub ahead of print]. doi:10.7326/M21-3023

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^{*} This supplementary material was provided by the authors to give readers further details on their article. The material was reviewed but not copyedited.

Supplement Table 1. ICD-10-CM Code Groups for Identifying Presumptive Shoulder Injury Cases

Code group	Description
ICD-10 code group A	shoulder disorder diagnoses reported in the SIRVA literature
ICD-10 code group B	other shoulder disorder diagnoses not previously reported in the SIRVA
	literature
ICD-10 code group C	shoulder symptom codes
ICD-10 code group D	shoulder injury codes (ICD-10-CM chapter 19: Injury, poisoning and certain
	other consequences of external causes)

ICD-10-CM = International Classification of Diseases, 10th Revision, Clinical Modification.

The complete list of ICD-10 codes for each code group is listed below.

Supplement Table 2. Shoulder Disorder ICD-10-CM Codes Reported in the SIRVA Literature (ICD-10 Code Group ${\bf A}$)

			Laterality	у
Code	Diagnosis	Left	Right	Unspecified
Shoulder b	ursitis diagnosis codes			
M75.5X	Bursitis of Shoulder	M75.52	M75.51	M75.50
M71.31	Other bursal cyst, shoulder	M71.312	M71.311	M71.319
M71.81	Other specified bursopathies, shoulder	M71.812	M71.811	M71.819
Shoulder d	iagnosis codes (not bursitis)			
M02.21X	Postimmunization arthropathy	M02.212	M02.211	M02.219
M13.11X	Monoarthritis, not elsewhere classified, shoulder	M13.112	M13.111	M13.119
M13.81X	Other specified arthritis, shoulder	M13.812	M13.811	M13.819
M25.41X	Effusion of shoulder	M25.412	M25.411	M25.419
M65.11X	Other infective tenosynovitis, shoulder	M65.112	M65.112	M65.119
M65.81X	Other synovitis and tenosynovitis, shoulder	M65.812	M65.811	M65.819
M67.31	Transient synovitis, shoulder	M67.312	M67.311	M67.319
M67.81	Other specified disorders of synovium and tendon, shoulder	M67.812, M67.814	M67.811, M67.813	M67.819
M67.91	Unspecified disorder of synovium and tendon, shoulder	M67.912	M67.911	M67.919
M67.92	Unspecified disorder of synovium and tendon, upper arm	M67.922	M67.921	M67.929
M75.0X	Adhesive capsulitis/frozen shoulder	M75.02	M75.01	M75.00
M75.1XX	Tears of rotator cuff	M75.102, M75.112, M75.122	M75.101, M75.111, M75.121	M75.100, M75.110, M75.120
M75.2X	Bicipital tendinitis	M75.22	M75.21	M75.120
M75.3X	Calcific tendinitis of shoulder	M75.32	M75.31	M75.30
M87.01X	Idiopathic asceptic necrosis of shoulder	M87.012	M87.011	M87.019
M87.02X	Idiopathic asceptic necrosis of humerus	M87.022	M87.021	M87.029
M87.11X	Osteonecrosis due to drugs, shoulder	M87.112	M87.111	M87.119
M87.12X	Osteonecrosis due to drugs, humerus	M87.122	M87.121	M87.129
M87.21X	Osteonecrosis due to previous trauma, shoulder	M87.212	M87.211	M87.219
M87.22X	Osteonecrosis due to previous trauma, humerus	M87.222	M87.221	M87.229
M87.31X	Other secondary osteonecrosis, shoulder	M87.312	M87.311	M87.319
M87.32X	Other secondary osteonecrosis, humerus	M87.322	M87.321	M87.329
M87.81X	Other osteonecrosis, shoulder	M87.812	M87.811	M87.819
M87.82X	Other osteonecrosis, humerus	M87.822	M87.821	M87.829
M89.31X	Hypertrophy of bone, shoulder	M89.312	M89.311	M89.319
M89.51X	Osteolysis, shoulder	M89.512	M89.511	M89.519
M89.52X	Osteolysis, upper arm	M89.522	M89.521	M89.529
S46.00X	Unspecified injury of muscle(s) and tendon(s) of rotator cuff	S46.002*	S46.001*	S46.009*
S46.09X	Other injury of muscle(s) and tendon(s) of rotator cuff	S46.092*	S46.091*	S46.099*
S40.01X	Contusion of shoulder	S40.012*	S40.011*	S40.019*

Supplement Table 3. Shoulder Disorder ICD-10-CM Codes not Previously Reported in the SIRVA Literature (ICD-10 Code Group B)

			Lateralit	у
Code	Diagnosis	Left	Right	Unspecified
M14.61	Charcots joint, shoulder	M14.612	M14.611	M14.619
M21.21	Flexion deformity, shoulder	M21.212	M21.211	M21.219
M24.11	Other articular cartilage disorders, shoulder	M24.112	M24.111	M24.119
M24.21	Disorder of ligament, shoulder	M24.212	M24.211	M24.219
M24.41	Recurrent dislocation, shoulder	M24.412	M24.411	M24.419
M24.51	Contracture, shoulder	M24.512	M24.511	M24.519
M24.61	Ankylosis, shoulder	M24.612	M24.611	M24.619
M24.81	Other specific joint derangements of shoulder, not elsewhere classified	M24.812	M24.811	M24.819
M25.01	Hemarthrosis, shoulder	M25.012	M25.011	M25.019
M25.11	Fistula, shoulder	M25.112	M25.111	M25.119
M25.21	Flail joint, shoulder	M25.212	M25.211	M25.219
M25.31	Other instability, shoulder	M25.312	M25.311	M25.319
M25.71	Osteophyte, shoulder	M25.712	M25.711	M25.719
M25.81	Other specified joint disorders, shoulder	M25.812	M25.811	M25.819
M60.21	Foreign body granuloma of soft tissue, not elsewhere classified, shoulder	M60.212	M60.211	M60.219
M60.22	Foreign body granuloma of soft tissue, not elsewhere classified, upper arm	M60.222	M60.221	M60.229
M60.81	Other myositis shoulder	M60.812	M60.811	M60.819
M60.82	Other myositis upper arm	M60.822	M60.821	M60.829
M61.01	Myositis ossificans traumatica, shoulder	M61.012	M61.011	M61.019
M61.02	Myositis ossificans traumatica, upper arm	M61.022	M61.021	M61.029
M61.41	Other calcification of muscle, shoulder	M61.412	M61.411	M61.419
M61.42	Other calcification of muscle, upper arm	M61.422	M61.421	M61.429
M61.51	Other ossification of muscle, shoulder	M61.512	M61.511	M61.519
M61.52	Other ossification of muscle, upper arm	M61.522	M61.521	M61.529
M62.01	Separation of muscle (nontraumatic), shoulder	M62.012	M62.011	M62.019
M62.02	Separation of muscle (nontraumatic), upper arm	M62.022	M62.021	M62.029
M62.11	Other rupture of muscle (nontraumatic), shoulder	M62.112	M62.111	M62.119
M62.12	Other rupture of muscle (nontraumatic), upper arm	M62.122	M62.121	M62.129
M62.21	Nontraumatic ischemic infarction of muscle, shoulder	M62.212	M62.211	M62.219
M62.22	Nontraumatic ischemic infarction of muscle, upper arm	M62.222	M62.221	M62.229
M62.41	Contracture of muscle, shoulder	M62.412	M62.411	M62.419
M62.41	Contracture of muscle, upper arm	M62.422	M62.421	M62.429
M62.51	Muscle wasting and atrophy, not elsewhere classified, shoulder	M62.512	M62.511	M62.519
M62.52	Muscle wasting and atrophy, not elsewhere classified, upper arm	M62.522	M62.521	M62.529
M66.11	Rupture of synovium, shoulder	M66.112	M66.111	M66.119
M66.21	Spontaneous rupture of extensor tendons, shoulder	M66.212	M66.211	M66.219
M66.22	Spontaneous rupture of extensor tendons, upper arm	M66.222	M66.221	M66.229

M66.31	Spontaneous rupture of flexor tendons, shoulder	M66.312	M66.311	M66.319
M66.32	Spontaneous rupture of flexor tendons, upper arm	M66.322	M66.321	M66.329
M66.81	Spontaneous rupture of other tendons, shoulder	M66.812	M66.811	M66.819
M66.82	Spontaneous rupture of other tendons, upper arm	M66.822	M66.821	M66.829
M67.21	Synovial hypertrophy, not elsewhere classified, shoulder	M67.212	M67.211	M67.219
M67.22	Synovial hypertrophy, not elsewhere classified, upper arm	M67.222	M67.221	M67.229
M67.41	Ganglion, shoulder	M67.412	M67.411	M67.419
M70.81	Other soft tissue disorders related to use, overuse and pressure of shoulder	M70.812	M70.811	M70.819
M70.91	Unspecified soft tissue disorder related to use, overuse and pressure of shoulder	M70.912	M70.911	M70.919
M75.4	Impingement syndrome of shoulder	M75.42	M75.41	M75.40
M75.8	Other shoulder lesions	M75.82	M75.81	M75.80
M75.9	Shoulder lesion, unspecified	M75.92	M75.91	M75.90
M79.A1	Nontraumatic compartment syndrome of upper extremity	M79.A12	M79.A11	M79.A19
Other oste	<u>eopathies</u>			
M89.01	Algoneurodystrophy, shoulder	M89.012	M89.011	M89.019
M89.02	Algoneurodystrophy, upper arm	M89.022	M89.021	M89.029
M89.71	Major osseous defect, shoulder region	M89.712	M89.711	M89.719
M89.72	Major osseous defect, humerus	M89.722	M89.721	M89.729
M89.8X1	Other specified disorders of bone, shoulder			M89.8X1
M89.8X2	Other specified disorders of bone, upper arm			M89.8X2
Chondrop	athies			
M94.21	Chondromalacia, shoulder	M94.212	M94.211	M94.219
M94.8X1	Other specified disorders of cartilage, shoulder			M94.8X1
M94.8X2	Other specified disorders of cartilage, upper arm			M94.8X2
Other disc	orders of the musculoskeletal system and connective tissue			
M95.8	Other specified acquired deformities of musculoskeletal system			M95.8
M95.9	Acquired deformity of musculoskeletal system, unspecified			M95.9

Supplement Table 4. Shoulder Symptom ICD-10-CM Codes (ICD-10 Code Group C)

			Laterality	,
Code	Diagnosis	Left	Right	Unspecified
M25.51	Pain in shoulder	M25.512	M25.511	M25.519
M25.61	Stiffness of shoulder, not elsewhere classified	M25.612	M25.611	M25.619
M79.6	Pain in arm	M79.602	M79.601	M79.609
M79.62	Pain in upper arm	M79.622	M79.621	M79.629

Supplement Table 5. Shoulder Injury Codes from ICD-10-CM Chapter 19: Injury, Poisoning and Certain Other Consequences of External Causes (ICD-10 Code Group D)

			Laterality	,
Code	Diagnosis	Left	Right	Unspecified
		S40.012*,	S40.011*,	S40.019*,
		S40.022*,	S40.021*,	S40.029*,
		S40.212*,	S40.211*,	S40.219*,
		S40.222*,	S40.221*,	S40.229*,
		S40.242*,	S40.241*,	S40.249*,
		S40.252*,	S40.251*,	S40.259*,
	Superficial injury of	S40.262*,	S40.261*,	S40.269*,
S40		S40.272*,	S40.271*,	S40.279*,
	shoulder and upper arm	S40.812*,	S40.811*,	S40.819*,
		S40.822*,	S40.821*,	S40.829*,
		S40.842*,	S40.841*,	S40.849*,
		S40.852*,	S40.851*,	S40.859*,
		S40.862*,	S40.861*,	S40.869*,
		S40.872*,	S40.871*,	S40.879*,
		S40.912*,	S40.911*,	S40.919*,
		S40.922*	S40.921*	S40.929*
		S41.002*,	S41.001*,	S41.009*,
		S41.012*,	S41.011*,	S41.019*,
		S41.022*,	S41.021*,	S41.029*,
		S41.032*,	S41.031*,	S41.039*,
		S41.042*,	S41.041*,	S41.049*,
044	Open wound of	S41.052*,	S41.051*,	S41.059*,
S41	shoulder and upper arm	S41.102*,	S41.101*,	S41.109*,
		S41.112*,	S41.111*,	S41.119*,
		S41.122*,	S41.121*,	S41.129*,
		S41.132*,	S41.131*,	S41.139*,
		S41.142*,	S41.141*,	S41.149*,
		,		S41.159*
		S41.152*	S41.151*	541.159
S42	Fracture of shoulder and upper arm			
	Shoulder and upper arm	S42.002*,	S42.001*,	S42.009*,
		S42.002 , S42.012*,	\$42.001°, \$42.011*,	\$42.009 , \$42.013*,
		S42.012 , S42.022*,	S42.021*,	S42.016*,
		S42.032*,	S42.031*,	S42.019*,
242.0	Fracture of	S42.015*,	S42.014*,	S42.023*,
S42.0	clavicle	S42.015*,	S42.014*,	S42.029*,
		S42.018*,	S42.017*,	S42.026*,
		S42.018*,	S42.017*,	S42.039*,
		S42.034*,	S42.024*,	S42.033*,
		S42.035*	S42.034*	S42.036*
S42.1	Fracture of	S42.102*,	S42.101*,	S42.109*,

	scapula	S42.112*,	S42.111*,	S42.113*,
		S42.115*,	S42.114*,	S42.116*,
		S42.122*,	S42.121*,	S42.123*,
		S42.125*,	S42.124*,	S42.126*,
		S42.132*,	S42.131*,	S42.133*,
		S42.135*,	S42.134*,	S42.136*,
		S42.142*,	S42.141*,	S42.143*,
		S42.145*,	S42.144*,	S42.146*,
		S42.152*,	S42.151*,	S42.153*,
		S42.155*,	S42.154*,	S42.156*,
		S42.192*	S42.191*	S42.199*
		S42.202*,	S42.201*,	S42.209*,
		S42.212*,	S42.211*,	S42.213*,
		S42.215*,	S42.214*,	S42.216*,
		S42.222*,	S42.221*,	S42.223*,
		S42.225*,	S42.224*,	S42.226*,
		S42.232*,	S42.231*,	S42.239*,
S42.2	Fracture of	S42.242*,	S42.241*,	S42.249*,
042.2	upper end of humerus	S42.252*,	S42.251*,	S42.253*,
		S42.255*,	S42.254*,	S42.256*,
		S42.262*,	S42.261*,	S42.263*,
		S42.265*,	S42.264*,	S42.266*,
		S42.272*,	S42.271*,	S42.279*,
		S42.292*,	S42.291*,	S42.293*,
		S42.295*	S42.294*	S42.296*
		S42.302*,	S42.301*,	S42.309*,
		S42.312*,	S42.311*,	S42.319*,
		S42.322*,	S42.321*,	S42.323*,
		S42.325*,	S42.324*,	S42.326*,
		S42.332*,	S42.331*,	S42.333*,
	Fracture of	S42.335*,	S42.334*,	S42.336*,
S42.3	shaft of humerus	S42.342*,	S42.341*,	S42.343*,
	Shart of numerus	S42.345*,	S42.344*,	S42.346*,
		S42.352*,	S42.351*,	S42.353*,
		S42.355*,	S42.354*,	S42.356*,
		S42.362*,	S42.361*,	S42.363*,
		S42.365*,	S42.364*,	S42.366*,
		S42.392*	S42.391*	S42.399*
		S42.402*,	S42.401*,	S43.409*,
		S42.412*,	S42.411*,	S43.413*,
		S42.415*,	S42.414*,	S43.416*,
		S42.422*,	S42.421*,	S43.423*,
	Fracture of	S42.425*,	S42.424*,	S43.426*,
S42.4		S42.432*,	S42.431*,	S43.433*,
	lower end of humerus	S42.435*,	S42.434*,	S43.436*,
		S42.442*,	S42.441*,	S43.443*,
		S42.445*,	S42.444*,	\$43.446*,
		S42.448*,	S42.447*,	S43.449*,
		S42.452*,	S42.451*,	S43.453*,
		J 12.702 ,	J 12.701 ,	J 10.700 ,

		S45.202*,	S45.201*,	S45.209*,
	shoulder and upper arm level	S45.092*,	S45.091*,	S45.099*,
345	Injury of blood vessels at	S45.012*,	S45.011*,	S45.019*,
		S45.002*,	S45.001*,	S45.009*,
	shoulder and upper arm level	S44.92X*	S44.91X*	S44.90X*
14	Injury of nerves at	S44.8X2*,	S44.8X1*,	S44.8X9*,
	Injury of names of	S44.32X*,	S44.31X*,	S44.30X*,
		S43.92X*	S43.91X*	S43.90X*
		S43.82X*,	S43.81X*,	S43.80X*,
		S43.62X*,	S43.61X*,	S43.60X*,
		S43.52X*,	S43.51X*,	S43.50X*,
		S43.492*,	S43.491*,	S43.499*,
		S43.432*,	S43.431*,	S43.439*,
		\$43.422*,	S43.421*,	S43.429*,
		S43.412*,	S43.411*,	S43.419*,
		\$43.402*,	S43.401*,	S43.409*,
		S43.395*,	S43.394*,	S43.396*,
		S43.392*,	S43.391*,	S43.393*,
		S43.315*,	S43.314*,	S43.316*,
		S43.312*,	S43.311*,	S43.313*,
		\$43.305*,	\$43.301°, \$43.304*,	\$43.305°,
	ngamento er enediaer girale	\$43.205°, \$43.302*,	S43.204*, S43.301*,	\$43.206*, \$43.303*,
43	ligaments of shoulder girdle	S43.202*, S43.205*,	S43.201*,	S43.203*,
	Dislocation and sprain of joints and	S43.152*,	S43.151*,	S43.159*,
		\$43.122 , \$43.132*,	S43.121 , S43.131*,	\$43.129 , \$43.139*,
		S43.122*,	S43.111*,	S43.119*,
		S43.112*,	S43.111*,	S43.119*,
		S43.102*,	S43.101*,	S43.109*,
		S43.085*,	S43.084*,	S43.086*,
		S43.082*,	S43.081*,	S43.083*,
		\$43.035*,	S43.034*,	S43.036*,
		S43.032*,	S43.031*,	S43.033*,
		\$43.025*,	S43.024*,	S43.026*,
		S43.022*,	S43.021*,	S43.023*,
		S43.015*,	S43.014*,	S43.016*,
		S43.012*,	S43.011*,	S43.013*,
		\$43.005*,	\$43.004*,	S43.006*,
		S43.002*,	S43.001*,	S43.003*,
42.9	part unspecified	S42.92X*	S42.91X*	S42.90X*
242.0	Fracture of shoulder girdle		C42.04V*	
		S42.495*	S42.494*	S43.496*
		S42.492*,	S42.491*,	S43.493*,
		S42.482*,	S42.481*,	S43.489*,
		S42.475*,	S42.474*,	S43.476*,
		S42.472*,	S42.471*,	S43.473*,
		S42.465*,	S42.464*,	S43.466*,
		S42.462*,	S42.461*,	S43.463*,
		040 400*	040 404*	0.40.400*

		S45.212*,	S45.211*,	S45.219*,
		S45.292*,	S45.291*,	S45.299*,
		S45.802*,	S45.801*,	S45.809*,
		S45.812*,	S45.811*,	S45.819*,
		S45.892*,	S45.891*,	S45.899*,
		S45.902*,	S45.901*,	S45.909*,
		S45.912*,	S45.911*,	S45.919*,
		S45.992*	S45.991*	S45.999*
		S46.002*,	S46.001*,	S46.009*,
		S46.012*,	S46.011*,	S46.019*,
		S46.022*,	S46.021*	S46.029*
		S46.092*,	S46.091*,	S46.099*,
		S46.802*,	S46.801*,	S46.809*,
	Injury of muscle fascia and tendon	S46.812*,	S46.811*,	S46.819*,
S46	at shoulder and upper arm level	S46.822*,	S46.821*,	S46.829*,
	at shoulder and upper arm level	S46.892*,	S46.891*,	S46.899*,
		S46.902*,	S46.901*,	S46.909*,
		S46.912*,	S46.911*,	S46.919*,
		S46.922*,	S46.921*,	S46.929*,
		S46.982*,	S46.981*,	S46.989*,
		S46.992*	S46.991*	S46.999*
S47	Crushing injury of	S47.2XX*	S47.1XX*	S47.9XX*
041	shoulder and upper arm	047.2777	047.1707	047.57/7
		S48.012*,	S48.011*,	S48.019*,
		S48.022*,	S48.021*,	S48.029*,
S48	Traumatic amputation of	S48.112*,	S48.111*,	S48.119*,
	shoulder and upper arm	S48.122*,	S48.121*,	S48.129*,
		S48.912*,	S48.911*,	S48.919*,
		S48.922*	S48.921*	S48.929*
		S49.002*,	S49.001*,	S49.009*,
		S49.012*,	S49.011*,	S49.019*,
		S49.022*,	S49.021*,	S49.029*,
		S49.032*,	S49.031*,	S49.039*,
		S49.042*,	S49.041*,	S49.049*,
		S49.092*,	S49.091*,	S49.099*,
S49	Other and unspecified injuries of	S49.102*,	S49.101*,	S49.109*,
	shoulder and upper arm	S49.112*,	S49.111*,	S49.119*,
	one and apper arm	'		
		S49.122*,	S49.121*,	S49.129*,
			S49.121*, S49.131*,	S49.129*, S49.139*,
		S49.122*,		
		S49.122*, S49.132*,	S49.131*,	S49.139*,
		S49.122*, S49.132*, S49.142*,	S49.131*, S49.141*,	S49.139*, S49.149*,
		\$49.122*, \$49.132*, \$49.142*, \$49.192*,	\$49.131*, \$49.141*, \$49.191*,	\$49.139*, \$49.149*, \$49.199*,

Supplement Method:

abstraction form

SCK Study ID (pre-populated)	
2. VSD Study ID (pre-populated)	
A. BACKGROUND INFORMATION	
3. Abstractor initials	
4. Abstraction date	
B. VACCINATION We are interested in vaccines administered in 2 The vaccine types and date are prepopulated.	016-2017.
5-1). Vaccine type (pre-populated)	
5-2).	
5-3).	
5-4).	
6. Vaccination date (pre-populated)	
7. Was there a vaccine given on this day?	
8. Are there clinic notes available for the vaccination visit?	○ Yes○ No(If there is registry information but no clinic notes, select "No")
8-1). If yes, was vaccination documented in the chart notes? (e.g., nursing notes, etc.)	 Yes Encounter notes available but no mention of vaccination Documented in the immunization record only Mentioned in clinic notes but not noted as given documented in the immunization record Other

8-2). Please copy and paste the relevant statement for the vaccine(s) given in the chart notes.	
8-3). Give the statement to specify Other.	
9. Was the route of the administration for the vaccine intramuscular (IM)?	YesNoUnknown
10. Was the vaccine administered in the deltoid muscle (i.e., the upper arm)?	YesNoUnknown
11. Vaccination side from SCK data (pre-populated)	○ Right○ Left○ Both○ Unknown
12. Vaccination side noted in the chart/registry	○ Right○ Left○ Both○ Unknown
13. Shoulder of interest If the side from the chart/registry (right, left, or both) does not agree with the prepopulated value above, then use the chart value. If no chart value is available, then use the prepopulated value. Hereafter, this will be referred to as the "shoulder of interest" and will be populated in questions about the side of symptoms/injury.	○ Right○ Left○ Both○ Unknown
14. The setting of vaccination	Clinic/Doctor's Office Urgent Care Emergency Room Hospital Inpatient Pharmacy Work Flu vaccine clinic/booth Other (specify) Unknown (Select the location that best describes where the patient was vaccinated. If the patient is a healthcare worker who received his/her vaccination at the place of employment, select "Work.")
14-1). Specify other location of vaccination.	

15. Credentials of the vaccinator	 LVN (Licensed Vocational Nurse)/LPN (Licensed Practical Nurse) MA (Medical Assistant) MD/DO (Physician) NP (Nurse Practitioner) PA (Physician's Assistant) Pharmacist Pharmacy Assistant RN (Registered Nurse) Unknown Other (specify)
15-1). Specify other credentials of the vaccinator.	
14R. The setting of vaccination in RIGHT shoulder/arm	Clinic/Doctor's Office Urgent Care Emergency Room Hospital Inpatient Pharmacy Work Flu vaccine clinic/booth Other (specify) Unknown (Select the location that best describes where the patient was vaccinated. If the patient is a healthcare worker who received his/her vaccination at the place of employment, select "Work.")
14R-1). Specify other locations of vaccination in RIGHT shoulder/arm.	
15R. Credentials of the vaccinator in RIGHT shoulder/arm	LVN (Licensed Vocational Nurse)/LPN (Licensed Practical Nurse) MA (Medical Assistant) MD/DO (Physician) NP (Nurse Practitioner) PA (Physician's Assistant) Pharmacist Pharmacy Assistant RN (Registered Nurse) Unknown Other (specify)
15R-1). Specify other credentials of vaccinator in RIGHT shoulder/arm.	

14L. The setting of vaccination in LEFT shoulder/arm	Clinic/Doctor's Office Urgent Care Emergency Room Hospital Inpatient Pharmacy Work Flu vaccine clinic/booth Other (specify) Unknown (Select the location that best describes where the patient was vaccinated. If the patient is a healthcare worker who received his/her vaccination at the place of employment, select "Work.")
14L-1). Specify other locations of vaccination in LEFT shoulder/arm.	
15L. Credentials of the vaccinator in LEFT shoulder/arm	LVN (Licensed Vocational Nurse)/LPN (Licensed Practical Nurse) MA (Medical Assistant) MD/DO (Physician) NP (Nurse Practitioner) PA (Physician's Assistant) Pharmacist Pharmacy Assistant RN (Registered Nurse) Unknown Other (specify)
15L-1). Specify other credentials of vaccinator in LEFT shoulder/arm.	
16. Were any problems with the vaccine injection noted (e.g., administration error)?	○ Yes ○ No
16-1). If yes, specify errors noted.	
17. Did the patient have any post-vaccination shoulder or arm (same as vaccinated) complaints noted at this visit?	○ Yes ○ No
18. Does the note mention any previous shoulder symptoms?	○ Yes ○ No
18-1). Side of previous shoulder symptoms	○ Right○ Left○ Both○ Unknown
18-2). Please copy and paste the relevant statement for previous shoulder symptoms and side mentioned from the chart notes.	

C. MEDICAL ENCOUNTERS ON THE SAME DAY AS VACCINATION		
19. Were there any other provider visits on the same calendar day as vaccination? Please only include encounters with patient/provider interaction, providers can include physicians, nurses, physical therapists, and other allied health workers.	YesNoUnknown	
20. Type of encounter	 Outpatient (primary care and specialty care office visit) Urgent care Emergency room Hospital inpatient Phone call Email Other (specify) 	
20-1). Specify other.		
21.Provider type	 Primary Care ER/Urgent Care/Inpatient Shoulder specialist Non-shoulder specialist Other (specify) 	
21-1). Specify other.		
22. Were any shoulder symptoms noted at this visit?	○ Yes ○ No	
22-1). On which side were the shoulder symptoms noted?	○ Right○ Left○ Both○ Unknown	
23. List any shoulder or arm diagnoses made at this visit. (Leave this blank if no diagnosis is given).		
24. When did the shoulder or arm symptoms start?		
Please be as specific as possible. If a date is given, give the date. - If a duration is given (e.g., "two weeks ago"), count backward that amount of time from the visit date and use that as the start date, even if the duration given was inexact (e.g., "about two weeks ago"). - If a range is given (e.g., "one to two weeks ago"), give the earliest possible start date (in that case, two weeks prior to the appointment). - Use the calendar box to select a date and write the exact statement regarding the start date or symptom duration in the text box.	(If the duration of symptoms is not discussed, leave this blank.)	

25. Is this date exact or an estimation?	 Exact Estimate (Select "estimate" if symptom duration/onset date was not discussed.)
26. Is this symptom onset date before OR after vaccination?	○ Before○ After○ Same
26-1). If the symptom onset date is the same as the vaccination date, is symptom onset before or after the vaccination?	O Before O After
27. Give the statement regarding the description of the symptoms and start date or symptom duration as it is in the chart. If the duration is not discussed, enter that here as well.	
28. Was the shoulder or arm diagnosis attributed to the vaccination by the provider?	○ Yes○ No○ Not stated
29. Please copy and paste the relevant statement for any cause of the shoulder symptoms from the chart note AND save the full visit note (unredacted) to S: drive as part of a case packet.	
24R. When did the RIGHT shoulder or arm symptoms start? Please be as specific as possible. If a date is given, give the date. - If a duration is given (e.g., "two weeks ago"), count backward that amount of time from the visit date and use that as the start date, even if the duration given was inexact (e.g., "about two weeks ago"). - If a range is given (e.g., "one to two weeks ago"), give the earliest possible start date (in that case, two weeks prior to the appointment). - Use the calendar box to select a date and write the exact statement regarding the start date or symptom duration in the text box.	(If the duration of symptoms is not discussed, leave this blank.)
25R. Is this date exact or an estimation?	Exact Estimate (Select "estimate" if symptom duration/onset date was not discussed.)
26R. Is the RIGHT shoulder symptom onset date before OR after vaccination?	O Before O After O Same
26R-1). If the RIGHT shoulder symptom onset date is the same as the vaccination date, is symptom onset before or after the vaccination?	O Before O After

27R. Give the statement regarding the description of the RIGHT shoulder symptoms and start date or RIGHT shoulder symptom duration as it is in the chart. If the duration is not discussed, enter that here as well.	
28R. Was the RIGHT shoulder or arm diagnosis attributed to the vaccination by the provider?	○ Yes○ No○ Not stated
29R. Please copy and paste the relevant statement for any cause of the RIGHT shoulder symptoms from the chart note AND save the full visit note (unredacted) to S: drive as part of a case packet.	
24L. When did the LEFT shoulder or arm symptoms	
Please be as specific as possible. If a date is given, give the date.	(If the duration of symptoms is not discussed, leave this blank.)
 If a duration is given (e.g., "two weeks ago"), count backward that amount of time from the visit date and use that as the start date, even if the duration given was inexact (e.g., "about two weeks ago"). If a range is given (e.g., "one to two weeks ago"), gives the earliest possible start date (in that case, two weeks prior to the appointment). Use the calendar box to select a date and write the exact statement regarding the start date or symptom duration in the text box. 	
25L. Is this date exact or an estimation?	 Exact Estimate (Select "estimate" if symptom duration/onset date was not discussed.)
26L. Is the LEFT shoulder symptom onset date before OR after vaccination?	O Before O After Same
26L-1). If the LEFT shoulder symptom onset date is the same as the vaccination date, is LEFT shoulder symptom onset before or after the vaccination?	O Before After
27L. Give the statement regarding the description of the LEFT shoulder symptoms and start date or LEFT shoulder symptom duration as it is in the chart. If the duration is not discussed, enter that here as well.	
28L. Was the LEFT shoulder or arm diagnosis attributed to the vaccination by the provider?	○ Yes○ No○ Not stated
29L. Please copy and paste the relevant statement for any cause of the LEFT shoulder symptoms from the chart note AND save the full visit note (unredacted) to S: drive as part of a case packet.	

D. PRE-EXISTING SHOULDER CONDITIONS DOCUMENTED PRIOR TO VACCINATION DATE Working backward from the date of vaccination to 6 months prior to vaccination, look for any

Working backward from the date of vaccination to 6 months prior to vaccination, look for any visits for shoulder or upper arm problems, symptoms, or injuries. Do not worry about any injuries or symptoms to the elbow, forearm, wrist, or hand.		
30. Any prior shoulder/upper arm symptoms found?	○ Yes ○ No	
30-1). On which side were the shoulder symptoms noted?	○ Right○ Left○ Both○ Unknown	
31. Visit date of most recent visit for shoulder/upper arm symptoms prior to vaccination		
32. Provider type	 Primary Care ER/Urgent Care/Inpatient Shoulder specialist Non-shoulder specialist Other (specify) 	
32-1). Specify other providers.		
33. Was there a previous diagnosis of the following shoulder injuries in the above shoulder in 6 months prior to vaccination?	◯ Yes ◯ No	
 Adhesive capsulitis/ frozen shoulder Bone erosion Bursitis Humerus fractures Impingement Left shoulder joint pain Osteitis Osteolysis Osteonecrosis Periosteal reactions Pseudoseptic arthritis Right shoulder joint pain Rotator cuff syndrome Shoulder joint effusion Synovitis/ tenosynovitis Tendinitis/ tendinosis/ tendonitis/ tendinopathy Torn rotator cuff 		
34. Was there a previous shoulder/upper arm diagnosis other than the above shoulder injuries (Q33) in the above shoulder?	⊖ Yes ⊖ No	
34-1). Specify other shoulder/upper arm diagnoses (list all shoulder/upper arm diagnoses given during the 6 months prior to vaccination).		
31R. Visit date of most recent visit for RIGHT shoulder/upper arm symptoms prior to vaccination		

32R. Provider type	Primary Care	
•	ER/Urgent Care/InpatientShoulder specialistNon-shoulder specialistOther (specify)	
32R-1). Specify other provider.		
33R. Was there a previous diagnosis of the following shoulder injuries in the RIGHT shoulder in 6 months prior to vaccination?	◯ Yes ◯ No	
 Adhesive capsulitis/ frozen shoulder Bone erosion Bursitis Humerus fractures Impingement Left shoulder joint pain Osteitis Osteolysis Osteonecrosis Periosteal reactions Pseudoseptic arthritis Right shoulder joint pain Rotator cuff syndrome Shoulder joint effusion Synovitis/ tenosynovitis Tendinitis/ tendinosis/ tendonitis/ tendinopathy Torn rotator cuff 		
34R. Was there a previous shoulder/upper arm diagnosis other than the above shoulder injuries (Q33R) in the RIGHT shoulder?	⊖ Yes ⊖ No	
34R-1). Specify other RIGHT shoulder/upper arm diagnoses (list all shoulder/upper arm diagnoses given during the 6 months prior to vaccination).		
31L. Visit date of most recent visit for LEFT shoulder/upper arm symptoms prior to vaccination		
32L. Provider type	 Primary Care ER/Urgent Care/Inpatient Shoulder specialist Non-shoulder specialist Other (specify) 	
32L-1). Specify other providers.		

33L. Was there a previous diagnosis of the following shoulder injuries in the LEFT shoulder in 6 months prior to vaccination?	○ Yes ○ No
 Adhesive capsulitis/ frozen shoulder Bone erosion Bursitis Humerus fractures Impingement Left shoulder joint pain Osteitis Osteolysis Osteonecrosis Periosteal reactions Pseudoseptic arthritis Right shoulder joint pain Rotator cuff syndrome Shoulder joint effusion Synovitis/ tenosynovitis Tendinitis/ tendinosis/ tendonitis/ tendinopathy Torn rotator cuff 	
34L. Was there a previous LEFT shoulder/upper arm diagnosis other than the above shoulder injuries (Q33L) in the above shoulder?	○ Yes ○ No
34L-1). Specify other LEFT shoulder/upper arm diagnoses (list all shoulder/upper arm diagnoses given during the 6 months prior to vaccination).	

E. NEXT MEDICAL ENCOUNTER AFTER VACCINATION We are interested in the first medical encounter that happened on a date other than the vaccination date, within 30 days of vaccination, even if it is not related to the shoulder/arm or vaccination.

35. Is there an encounter within 30 days of vaccination?	○ Yes ○ No
36. Date of next medical encounter	
37. Type of encounter	 Outpatient (primary care and specialty care office visit) Urgent care Emergency room Hospital inpatient Phone call Email Other (specify)
37-1). Specify other.	
38. Provider type	 Primary Care ER/Urgent Care/Inpatient Shoulder specialist Non-shoulder specialist Other (specify)
38-1). If other, specify.	
39. What was the chief complaint of this visit?	
40. Were any shoulder/upper arm symptoms documented as part of this encounter?	○ Yes ○ No
40-1). On which side did the patient complain of shoulder/upper arm symptoms?	○ Right ○ Left ○ Both ○ Unknown

F. FIRST SHOULDER/UPPER ARM VISIT WITHIN 30 DAYS POST-VACCINATION

Look for the first clinic visit for shoulder/upper arm symptoms, within 30 days of vaccination. If the visit is clearly NOT for the shoulder of interest, go to the first visit that is for the shoulder of interest/both shoulders/laterality is unclear.

If the answer to the previous question (Q40. Did the patient complain of shoulder/upper arm symptoms as part of this encounter?) is Yes, answer these questions based on that visit. If the answer was No, look for the next clinic visit that involves shoulder/upper arm symptoms and answer the questions based on that visit.

answer the questions based on that visit.	
41. Is there a shoulder/upper arm visit within 30 days of the vaccination date?	○ Yes ○ No
42. Date of the first shoulder/upper arm visit.	
	(If there are no shoulder visits please enter '09/09/9999'.)
43. Type of encounter	Outpatient (primary care and specialty care office visit) Urgent care Emergency room Hospital inpatient Other (specify)
43-1). Specify other.	
44. Type of provider	 Orthopedics Rheumatologist Physical Medicine & Rehabilitation Sports Medicine Primary Care Physician (e.g., internal medicine, family medicine, pediatrics) Physical Therapy Occupational Therapy Other (specify)
44-1). Specify other provider type.	
45. Which side has the symptoms?	○ Right○ Left○ Both○ Unknown
46. When did the shoulder or arm symptoms start?	
Please be as specific as possible. If a date is given, gi date. If a duration is given (e.g., "two weeks ago") count backwards that amount of time from the visit of and use that as the start date, even if the duration given (e.g., "about two weeks ago"). If a range given (e.g., "one to two weeks ago") give the earliest possible start date (in that case, two weeks prior to the start date).	not discussed at this visit.) date given e is st

appointment). Use the calendar box to select a date and

symptom duration in the text box. Exact 47. Is this date exact or an estimation? Estimate (Select "estimate" if the duration of symptoms was not discussed.) O Yes 48. Is this pre-existing condition? O No Possible Unknown 49. Were the pre-existing shoulder/arm symptoms noted to Yes O No recur or worsen following vaccination? O Possible If no, please STOP here and END abstraction. Unknown 50. Did the recurrence or worsening of symptoms occur Yes within 30 days of vaccination? O No Unknown If no, please STOP here and END abstraction. 51. Give the statement regarding the description of the symptoms, start date or symptom duration as it is in the chart. If duration is not discussed, enter that here as well. Please save the full visit note (unredacted) to S: drive as part of a case packet. 52. Check all the symptoms that were reported ☐ Atrophy ☐ Impingement Numbness ☐ Pain/Soreness Radiating pain (from a non-shoulder location) ☐ Reduced range of motion (ROM) ☐ Stiffness ☐ Swelling ☐ Tingling ☐ Weakness ☐ Other shoulder symptoms (specify) 52-1). Specify other. 53. Was a specific injury or action, other than Yes vaccination, mentioned as the cause of the \bigcirc No shoulder/upper arm symptoms? 54. Were the shoulder/upper arm symptoms attributed to Yes the vaccine by the patient or provider? \bigcirc No 55. Please copy and paste the relevant statement from the chart note for any cause of the symptoms AND save the full visit note (unredacted) to S: drive as part of a case packet.

write the exact statement regarding the start date or

56. Was vaccination mentioned at all in the visit note?	○ Yes ○ No
Was the vaccine type specified in the statement?	○ Yes ○ No
57-1). If the above question is "Yes", select the vaccine type from the following list.	☐ Influenza ☐ TDAP ☐ Pneumococcal ☐ Hepatitis A or B ☐ HPV ☐ Meningococcal ☐ Other (specify)
57-1a). Specify other.	
57-2). Does the vaccine type state match to the one listed in Q5?	○ Yes ○ No
58. Were any symptoms documented described as being a vaccine injection? Select as many as apply.	 ☐ Induration/Hard mass related to ☐ Erythema/Swelling/Redness ☐ Pain/Soreness ☐ Rash ☐ Other (specify)
58-1). Specify other.	
59. Specify positive/abnormal physical examfindings pertaining to the above shoulder/upper arm.	
60. Was there a diagnosis of the following shoulder injuries in the above shoulder at this visit? Please select as many diagnoses given at this visit.	Adhesive capsulitis/frozen shoulder Bone erosion Bursitis Impingement Osteitis Osteolysis Osteonecrosis Periosteal reactions Pseudoseptic arthritis Shoulder joint effusion Synovitis/ tenosynovitis Tendinitis/ tendinosis/ tendonitis/ tendinopathy Torn rotator cuff Rotator cuff syndrome Right shoulder joint pain Left shoulder joint pain Humerus fractures Other No shoulder injury diagnosis
60-1). Specify other shoulder/upper arm diagnoses (If there is no Other diagnosis, please leave blank.)	

46R. When did the RIGHT shoulder or arm symptoms start? Please be as specific as possible. If a date is given, give the date. If a duration is given (e.g., "two weeks ago") count backward that amount of time from the visit date and use that as the start date, even if the duration given was inexact (e.g., "about two weeks ago"). If a range is given (e.g., "one to two weeks ago") give the earliest possible start date (in that case, two weeks prior to the appointment). Use the calendar box to select a date and write the exact statement regarding the start date or symptom duration in the text box.	(Leave blank if symptom duration or onset date was not discussed at this visit.)
47R. Is this date exact or an estimation?	 Exact Estimate (Select "estimate" if the duration of symptoms was not discussed.)
48R. Is this pre-existing condition?	YesNoPossibleUnknown
49R. Were the pre-existing RIGHT shoulder/arm symptoms noted to recur or worsen following vaccination? If no please STOP here and END abstraction.	YesNoPossibleUnknown

50R. Did the recurrence or worsening of RIGHT shoulder symptoms occur within 30 days of vaccination?	○ Yes○ No○ Unknown
If no, please STOP here and END abstraction.	
51R. Give the statement regarding the description of the RIGHT shoulder symptoms, start date or symptom duration as it is in the chart. If duration is not discussed, enter that here as well.	
Please save the full visit note (unredacted) to S: drive as part of a case packet.	
52R. Check all the RIGHT shoulder symptoms that were reported	Atrophy Impingement Numbness Pain/Soreness Radiating pain (from a non-shoulder location) Reduced range of motion (ROM) Stiffness Swelling Tingling Weakness Other shoulder symptoms (specify)
52R-1). Specify other.	
53R. Was a specific injury or action, other than vaccination, mentioned as the cause of the RIGHT shoulder/upper arm symptoms?	○ Yes ○ No
54R. Were the RIGHT shoulder/upper arm symptoms attributed to the vaccine by the patient or provider?	○ Yes ○ No
55R. Please copy and paste the relevant statement from the chart note for any cause of the RIGHT shoulder symptoms AND save the full visit note (unredacted) to S: drive as part of a case packet.	
56R. Was vaccination mentioned at all in the visit note?	○ Yes ○ No
57R. Was the vaccine type specified in the statement?	○ Yes ○ No
57R-1). If the above question is "Yes", select the vaccine type from the following list.	☐ Influenza ☐ TDAP ☐ Pneumococcal ☐ Hepatitis A or B ☐ HPV ☐ Meningococcal ☐ Other (specify)
57R-1a). Specify other.	

57R-2). Does the vaccine type stated match to the one listed in Q5?	○ Yes ○ No
58R. Were any RIGHT shoulder symptoms documented as being related to a vaccine injection? Select as many as apply.	☐ Induration/Hard mass described ☐ Erythema/Swelling/Redness ☐ Pain/Soreness ☐ Rash ☐ Other (specify)
58R-1). Specify other.	
59R. Specify positive/abnormal physical exam findings pertaining to the RIGHT shoulder/upper arm.	
60R. Was there a diagnosis of the following shoulder injuries in the RIGHT shoulder at this visit? Please select as many diagnoses are given at this visit.	Adhesive capsulitis/frozen shoulder Bone erosion Bursitis Impingement Osteitis Osteolysis Osteonecrosis Periosteal reactions Pseudoseptic arthritis Shoulder joint effusion Synovitis/ tenosynovitis Tendinitis/ tendinosis/ tendonitis/ tendinopathy Torn rotator cuff Rotator cuff syndrome Right shoulder joint pain Left shoulder joint pain Humerus fractures Other No shoulder injury diagnosis
60R-1). Specify other RIGHT shoulder/upper arm diagnoses (If there are no Other diagnosis, please	

46L. When did the LEFT shoulder or arm symptoms start? Please be as specific as possible. If a date is given, give the date. If a duration is given (e.g., "two weeks ago") count backward that amount of time from the visit date and use that as the start date, even if the duration given was inexact (e.g., "about two weeks ago"). If a range is given (e.g., "one to two weeks ago") give the earliest possible start date (in that case, two weeks prior to the appointment). Use the calendar box to select a date and write the exact statement regarding the start date or symptom duration in the text box.	(Leave blank if symptom duration or onset date was not discussed at this visit.)
47L. Is this date exact or an estimation?	ExactEstimate(Select "estimate" if the duration of symptoms was not discussed.)
48L. Is this pre-existing condition?	Yes No Possible Unknown
49L. Were the pre-existing LEFT shoulder/arm symptoms noted to recur or worsen following vaccination? If no, please STOP here and END abstraction.	YesNoPossibleUnknown

50L. Did the recurrence or worsening of LEFT shoulder symptoms occur within 30 days of vaccination?	○ Yes○ No○ Unknown
If no, please STOP here and END abstraction.	Oliklowii
51L. Give the statement regarding the description of the LEFT shoulder symptoms, start date or symptom duration as it is in the chart. If duration is not discussed, enter that here as well.	
Please save the full visit note (unredacted) to S: drive as part of a case packet.	
52L. Check all the LEFT shoulder symptoms that were reported	Atrophy Impingement Numbness Pain/Soreness Radiating pain (from a non-shoulder location) Reduced range of motion (ROM) Stiffness Swelling Tingling Weakness Other shoulder symptoms (specify)
52L-1). Specify other.	
53L. Was a specific injury or action, other than vaccination, mentioned as the cause of the LEFT shoulder/upper arm symptoms?	○ Yes ○ No
54L. Were the LEFT shoulder/upper arm symptoms attributed to the vaccine by the patient or provider?	○ Yes ○ No
55L. Please copy and paste the relevant statement from the chart note for any cause of the LEFT shoulder symptoms AND save the full visit note (unredacted) to S: drive as part of a case packet.	
56L. Was vaccination mentioned at all in the visit note?	○ Yes ○ No
57L. Was the vaccine type specified in the statement?	○ Yes ○ No
57L-1). If the above question is "Yes", select the vaccine type from the following list.	☐ Influenza ☐ TDAP ☐ Pneumococcal ☐ Hepatitis A or B ☐ HPV ☐ Meningococcal ☐ Other (specify)
57L-1a). Specify other.	

57L-2). Does the vaccine type stated match the one listed in Q5?	○ Yes ○ No
58L. Were any LEFT shoulder symptoms documented as being related to a vaccine injection? Select as many as apply.	☐ Induration/Hard mass described ☐ Erythema/Swelling/Redness ☐ Pain/Soreness ☐ Rash ☐ Other (specify)
58L-1). Specify other.	
59L. Specify positive/abnormal physical exam findings pertaining to the LEFT shoulder/upper arm.	
60L. Was there a diagnosis of the following shoulder injuries in the LEFT shoulder at this visit? Please select as many diagnoses given at this visit.	Adhesive capsulitis/frozen shoulder Bone erosion Bursitis Impingement Osteitis Osteolysis Osteonecrosis Periosteal reactions Pseudoseptic arthritis Shoulder joint effusion Synovitis/ tenosynovitis Tendinitis/ tendinosis/ tendonitis/ tendinopathy Torn rotator cuff Rotator cuff syndrome Right shoulder joint pain Left shoulder joint pain Humerus fractures Other No shoulder injury diagnosis
60L-1). Specify other LEFT shoulder/upper arm diagnoses (If there are no Other diagnosis, please leave blank.)	
61-1). List all other diagnoses below given at this appointment, even if they don't pertain to the shoulder.	
61-2).	
61-3).	
61-4).	
61-5).	
61-6).	
61-7).	

61-8).	
61-9).	
61-10).	
61-11). Please include all other diagnoses if more than ten.	

G. FIRST SHOULDER/UPPER ARM VISIT WITHIN 3	I-180 DAYS POST-VACCINATION
Look for the first clinic visit for shoulder/upper ar	m symptoms, within 31-180 days of
vaccination. If the visit is clearly NOT for the show	ulder of interest, go to the first visit that is for
the shoulder of interest/both shoulders/laterality is	s unclear.
62. Is there a visit related to the shoulder/arm of interest within 31-180 days following vaccination? If no, go to Section H.	○ Yes ○ No
63. Date of visit:	
64. Type of encounter:	 Outpatient (primary care and specialty care office visit) Urgent care Emergency room Hospital inpatient Other (specify)
64-1). Specify other.	

65. Type of provider:	 Orthopedics Rheumatologist Physical Medicine & Rehabilitation Sports Medicine Primary Care Physician (e.g., internal medicine, family medicine, pediatrics) Physical Therapy Occupational Therapy Other (specify)
65-1). Specify other provider types.	
66. Which shoulder was discussed at the encounter?	○ Right○ Left○ Both○ Unknown
67. Did the patient note that his/her symptoms had resolved/relieved?	 Resolved Improved No resolution/improvement Other (e.g., some symptoms improved but other symptoms still present) Unknown
68. Symptoms that the patient is still experiencing:	Atrophy Impingement Numbness Pain/Soreness Radiating pain (from non-shoulder location) Reduced range of motion (ROM) Stiffness Swelling Tingling Weakness Other shoulder symptoms (specify)
68-1). Specify other.	
69. Was a specific injury or action, other than vaccination, mentioned as the cause of the shoulder/upper arm symptoms?	○ Yes ○ No
70. Were the shoulder/upper arm symptoms attributed to the vaccine by the patient or provider?	⊖ Yes ⊝ No
71. Please copy and paste the relevant statement from the chart note for any cause of the symptoms AND save the full visit note (unredacted) to S: drive as part of a case packet.	
72. Was vaccination mentioned at all in the visit note?	○ Yes ○ No
73. Was the vaccine type specified in the statement?	○ Yes ○ No

73-1). If the above question is "Yes", select the vaccine type from the following list.	☐ Influenza ☐ TDAP ☐ Pneumococcal ☐ Hepatitis A or B ☐ HPV ☐ Meningococcal ☐ Other (specify)
73-1a). Specify other.	
73-2). Does the vaccine type state match the one listed in Q5?	○ Yes ○ No
67R. Did the patient note that his/her RIGHT shoulder symptoms had resolved/relieved?	 Resolved Improved No resolution/improvement Other (e.g., some symptoms improved but other symptoms still present) Unknown
68R. RIGHT shoulder symptoms that the patient is still experiencing:	☐ Atrophy ☐ Impingement ☐ Numbness ☐ Pain/Soreness ☐ Radiating pain (from non-shoulder location) ☐ Reduced range of motion (ROM) ☐ Stiffness ☐ Swelling ☐ Tingling ☐ Weakness ☐ Other shoulder symptoms (specify)
68R-1). Specify other.	
67L. Did the patient note that his/her LEFT shoulder symptoms had resolved/relieved?	Resolved Improved No resolution/improvement Other (e.g., some symptoms improved but other symptoms still present) Unknown
68L. LEFT shoulder symptoms that the patient is still experiencing:	☐ Atrophy ☐ Impingement ☐ Numbness ☐ Pain/Soreness ☐ Radiating pain (from non-shoulder location) ☐ Reduced range of motion (ROM) ☐ Stiffness ☐ Swelling ☐ Tingling ☐ Weakness ☐ Other shoulder symptoms (specify)
68L-1). Specify other.	

even if they don't pertain to the shoulder.	-
74-2).	
74-3).	
74-4).	
74-5).	
74-6).	
74-7).	
74-8).	
74-9).	
74-10).	
74-11). Please include all other diagnoses if more than ten.	

H. Case Definition

A SIRVA case is a shoulder injury occurring in the same arm in which a vaccine was injected within the first 7 days following vaccination and lasting more than 30 days following vaccination, with vaccination as one of the possible causes of the shoulder injury.

Please use all available records in +/- 6 months from the index date to answer the questions in

this section.	
75. In your review, which shoulder/arm was identified with symptoms after vaccination?	○ Right○ Left○ Both○ Unknown
75R. Did a true RIGHT shoulder injury occur? (from the following) - Adhesive capsulitis/frozen shoulder - Bone erosion - Bursitis - Humerus fractures - Impingement - Left shoulder joint pain - Osteitis - Osteolysis - Osteonecrosis - Periosteal reactions - Pseudoseptic arthritis - Right shoulder joint pain - Rotator cuff syndrome - Shoulder joint effusion - Synovitis/ tenosynovitis - Tendinitis/ tendinosis/ tendonitis/ tendinopathy - Torn rotator cuff - Other	 Shoulder injury diagnosis code AND physician/patient mention of shoulder symptoms Shoulder injury diagnosis code with no mention of shoulder symptoms by physician/patient Shoulder symptoms mentioned by physician/patient but no shoulder injury diagnosis code No shoulder injury diagnosis code or physician/patient mention of shoulder symptoms
76R-1). List the diagnosis codes from Q75R.	
76R-2).	
76R-3).	
76R-4).	
76R-5).	
76R-6).	
76R-7).	
76R-8).	

76R-9).	
76R-10).	
77R. Did the shoulder injury occur in the RIGHT arm in which a vaccine was injected?	○ Yes○ No○ Unknown
77R-1). Please copy and paste the relevant statement from the chart notes on the RIGHT shoulder injury.	
78R. Did the RIGHT symptoms of shoulder injury begin within the first 7 days following vaccination? (Please be sure to use the most complete and reliable information to answer this question when there are	 Yes No No, but increased severity of pre-existing symptoms in the first 30 days Possible
discrepancies with more than one source.)	Unknown
78R-1). Please copy and paste the relevant statement from the chart notes on the shoulder injury symptom onset.	
79R. Did the RIGHT shoulder symptoms persist more than 30 days from the date of vaccination? (Please be sure to use the most complete and accurate information to answer this question when there are discrepancies with more than one source.)	YesNoPossibleUnknown
79R-1). Please copy and paste the relevant statement from the chart notes on the RIGHT shoulder injury symptom duration.	
80R. What was the cause of the RIGHT shoulder injury? (Please select as many causes as documented.)	 □ Vaccine □ Incident (e.g., fall, auto accident) □ Exercise (e.g., exercise, sports) □ Daily activity (e.g., overuse, lifting a heavy item, work-related injury, side sleeping) □ Other medical conditions (e.g., arthritis, chest pain radiating to the shoulder) □ Unknown (e.g., no explicit cause, insidious/aggravating factors- 'worse with exercise')
80R-1). Please copy and paste the relevant statement from the chart notes on the cause of RIGHT shoulder injury (for all of the above responses).	
81R. Does it look like a SIRVA case?	○ Yes○ No○ Possible○ Unknown

75L. Did a true LEFT shoulder injury occur? (from the following) - Adhesive capsulitis/frozen shoulder - Bone erosion - Bursitis - Humerus fractures - Impingement	 Shoulder injury diagnosis code AND physician/patient mention of shoulder symptoms Shoulder injury diagnosis code with no mention of shoulder symptoms by physician/patient Shoulder symptoms mentioned by physician/patient but no shoulder injury diagnosis code No shoulder injury diagnosis code or physician/patient mention of shoulder symptoms 				
 Left shoulder joint pain Osteitis Osteolysis Osteonecrosis Periosteal reactions Pseudoseptic arthritis Right shoulder joint pain Rotator cuff syndrome Shoulder joint effusion Synovitis/ tenosynovitis Tendinitis/ tendinosis/ tendonitis/ tendinopathy Torn rotator cuff Other 					
76L-1). List the diagnosis codes from Q75L.					
76L-2).					
76L-3).					
76L-4).					
76L-5).					
76L-6).					
76L-7).					
76L-8).					
76L-9).					
76L-10).					

77L. Did the shoulder injury occur in the LEFT arm in which a vaccine was injected?	○ Yes○ No○ Unknown			
77L-1). Please copy and paste the relevant statement from the chart notes on the LEFT shoulder injury.				
78L. Did the symptoms of the LEFT shoulder injury begin within the first 7 days following vaccination? (Please be sure to use the most complete and reliable information to answer this question when there are discrepancies with more than one source.)	○ Yes○ No○ No, but increased severity of symptoms○ Possible○ Unknown			
78L-1). Please copy and paste the relevant statement from the chart notes on the LEFT shoulder injury symptom onset.				
79L. Did the symptoms of LEFT shoulder injury persist more than 30 days from the date of vaccination? (Please be sure to use the most complete and accurate information to answer this question when there are discrepancies with more than one source.)	YesNoPossibleUnknown			
79L-1). Please copy and paste the relevant statement from the chart notes on the LEFT shoulder injury symptom duration.				
80L. What was the cause of the LEFT shoulder injury? (Please select as many causes as documented.)	 □ Vaccine □ Incident (e.g., fall, auto accident) □ Exercise (e.g., exercise, sports) □ Daily activity (e.g., overuse, lifting a heavy item, work-related injury, side sleeping) Other □ medical conditions (e.g., arthritis, chest pain radiating to the shoulder) □ Unknown (e.g., no explicit cause, insidious/aggravating factors- 'worse with exercise') 			
80L-1). Please copy and paste the relevant statement from the chart notes on the cause of the LEFT shoulder injury (for all of the above responses).				
81L. Does it look like a SIRVA case?	YesNoPossibleUnknown			

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82. Do you have any questions or comments not addressed in the form? Please enter them here.