

Mfr Report #	(b) (6)
UF/Importer Report #	
FDA Use Only	

A. PATIENT INFORMATION			
1. Patient Identifier US3082269	2. Age at Time of Event: 75 Years or Date of Birth: (b) (6)/1945	3. Sex <input type="checkbox"/> Female <input checked="" type="checkbox"/> Male	4. Weight ____ lbs or ____ kgs
In confidence			
B. ADVERSE EVENT OR PRODUCT PROBLEM			
1. <input checked="" type="checkbox"/> Adverse Event and/or <input type="checkbox"/> Product Problem (e.g., defects/malfunctions)			
2. Outcomes Attributed to Adverse Event (Check all that apply) <input checked="" type="checkbox"/> Death: 10/03/2020 (mm/dd/yyyy) <input checked="" type="checkbox"/> Disability or Permanent Damage <input type="checkbox"/> Life-threatening <input type="checkbox"/> Congenital Anomaly/Birth Defect <input checked="" type="checkbox"/> Hospitalization - initial or prolonged <input checked="" type="checkbox"/> Other Serious (Important Medical Events) <input type="checkbox"/> Required Intervention to Prevent Permanent Impairment/Damage (Devices)			
3. Date of Event (mm/dd/yyyy) 10/02/2020		4. Date of This Report (mm/dd/yyyy) 11/22/2020	
5. Describe Event or Problem Event Verbatim [LOWER LEVEL TERM] (Related symptoms if any separated by commas) INTRA-ABDOMINAL PERFORATION [Abdominal injury] Case Description: This 75-year-old, American Indian or Alaska Native, male subject (US3082269) was participating in A Phase 3, Randomized, Stratified, Observer-Blind, Placebo-Controlled Study to Evaluate the Efficacy, Safety, and Immunogenicity of mRNA-1273 SARS-CoV-2 Vaccine in Adults Aged 18 Years and Older (mRNA-1273-P301), and experienced intra-abdominal perforation. The subject's medical history, as provided by the investigator, included hiatal hernia, urinary retention, gout (both feet) and erectile dysfunction. Additional medical history, as provided by the discharge summary, included benign continued in additional info section...			
6. Relevant Tests/Laboratory Data, Including Dates #1 10/02/2020 Activated partial t (continued) #2 10/02/2020 Alanine aminotransferase (continued) #3 10/02/2020 Angiogram (Continued) #4 10/02/2020 Anion gap (continued) #5 10/02/2020 Aspartate aminotransferase (continued) #6 10/02/2020 Base excess (continued) continued in additional info section...			
7. Other Relevant History, Including Preexisting Medical Conditions (e.g. allergies, race, pregnancy, smoking and alcohol use, hepatic/renal dysfunction, etc.) Race: American Indian or Alaska Native #1 --/--/2018, Current Condition, Gout (Continued) #2 --/--/2019 to Ongoing Current Condition, (Continued) #3 --/--/2019 to Ongoing Current Condition, (Continued) continued in additional info section...			

C. SUSPECT PRODUCT(S)			
1. Name (Give labeled strength & mfr/labeler) #1. mRNA-1273 vs Placebo (Code not broken) #2.			
2. Dose, Frequency & Route Used #1. Blinded, Information withheld. #2.		3. Therapy Dates (if unknown, give duration) from/to (or best estimate) #1. 09/21/2020 to 09/21/2020 #2.	
4. Diagnosis for Use (Indication) #1. COVID-19 (Continued) #2.		5. Event Abated After Use Stopped or Dose Reduced? #1. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Doesn't Apply #2. <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Doesn't Apply	
6. Lot # #1. Blinded #2.	7. Exp. Date #1. Blinded #2.	8. Event Reappeared After Reintroduction? #1. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Doesn't Apply #2. <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Doesn't Apply	
9. NDC# or Unique ID			
10. Concomitant Medical Products and Therapy Dates (Exclude treatment of event) 1) TAMSULOSIN (TAMSULOSIN) --/--/2019 to ongoing 2) COLCHICINE (COLCHICINE) --/--/2018 to ongoing continued in additional info section...			
G. ALL MANUFACTURERS			
1. Contact Office (and Manufacturing Site for Devices) Name ModernaTX, Inc. David Martin MD. Address 200 Technology Square Cambridge, MA 02139 United States of America Email Address		2. Phone Number 617-335-1804	
4. Date Received by Manufacturer (mm/dd/yyyy) 11/13/2020		5. (A)NDA # IND # 019635 BLA # PMA/ 510(k) # Combination Product <input type="checkbox"/> Yes Pre-1938 <input type="checkbox"/> Yes OTC Product <input type="checkbox"/> Yes	
6. If IND, Give Protocol # mRNA-1273-P301		3. Report Source (Check all that apply) <input type="checkbox"/> Foreign <input checked="" type="checkbox"/> Study <input type="checkbox"/> Literature <input type="checkbox"/> Consumer <input checked="" type="checkbox"/> Health Professional <input type="checkbox"/> User Facility <input type="checkbox"/> Company Representative <input type="checkbox"/> Distributor <input type="checkbox"/> Other:	
7. Type of Report (Check all that apply) <input type="checkbox"/> 5-day <input type="checkbox"/> 30-day <input type="checkbox"/> 7-day <input type="checkbox"/> Periodic <input type="checkbox"/> 10-day <input type="checkbox"/> Initial <input type="checkbox"/> 15-day <input checked="" type="checkbox"/> Follow-up #5			
9. Manufacturer Report Number (b) (6)		8. Adverse Event Term(s) Abdominal injury	

E. INITIAL REPORTER			
1. Name and Address Dr. BARTON WILLIAMS Trial Management Associates LLC 3806 PEACHTREE AVE. WILMINGTON, North Carolina 28403 UNITED STATES			
Phone # (b) (6)		Email Address (b) (6) @trialmgt.com	
2. Health Professional? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	3. Occupation Physician	4. Initial Reporter Also Sent Report to FDA <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unk	

Submission of a report does not constitute an admission that medical personnel, user facility, distributor, manufacturer or product caused or contributed to the event

ADDITIONAL INFORMATION**B5. EVENT DESCRIPTION (Continued)**

prostatic hyperplasia, gastroesophageal reflux disease, knee surgery, high cholesterol, hyperlipidemia, post herpetic neuralgia, type 2 diabetes mellitus and previous smoker. Concomitant medications reported included tamsulosin, colchicine, and tadalafil.

The subject was allocated to receive intramuscular mRNA-1273 or placebo for SARS-CoV-2 vaccination. The subject received the first dose of blinded study drug on 21 Sep 2020. The subject's last dose of study drug prior to event onset was on 21 Sep 2020.

On 01 Oct 2020, the subject began having abdominal pain in the evening.

On 02 Oct 2020, the subject complained of abdominal pain and dyspnea that morning. He went to his primary care physician's (PCP) office with palpitations and shortness of breath. While at his PCP, he was found to have uncontrolled atrial fibrillation (A-fib) and hypoxia with pulse oxygen of 45%. He was also noted to be hypotensive. He denied chest pains that morning but had chest pains later. A review of systems showed he did not have chills, fatigue or fever, was negative for congestion, ear pain, rhinorrhea, sore throat and eyes were without pain. He was positive for shortness of breath and negative for cough. He had chest pains and palpitations. There were no seizures, weakness or headaches. He was administered 81 mg acetylsalicylic acid at 11:23. Emergency medical services was called, and he was transported to the hospital. They were unable to get a blood pressure (BP) reading and heart rate ranged from 50-156 en route. On presentation to the emergency department (ED), he was tachycardic in the 140's, hypotensive, dyspneic and mentating. Bradycardia, A-fib with rapid ventricular rate and ventricular arrhythmia were noted. He denied nausea and vomiting. He was on 15 liters of oxygen via non-rebreather and saturating well. While in the ED, he was intubated electively. A nasogastric tube was placed to decompress his stomach. A-fib improved following rapid pressure infusion of normal saline, IV cardiazem and comfort improved with non-rebreather. He reported no history of A-fib, stated he was significantly short of breath and was in tripod position. Pulmonary embolism was presumed due to new onset of a-fib, shortness of breath and hypoxia. Physical examination showed that he appeared well-developed and well-nourished, in no distress. Head was normocephalic and atraumatic, eyes with normal conjunctivae, no sclera icterus. Neck was supple with no thyromegaly present. Heart rhythm was tachy and irregular, and he was in respiratory distress. An electrocardiogram (ECG) in normal sinus showed no signs of acute ischemia. A second ECG showed sinus tachycardia, rightward axis, could not rule out inferior infarct (cited on or before 02 Oct 2020) Abnormal ECG (when compared with ECG of 02 Oct 2020 11:50, unconfirmed) premature ventricular complexes were no longer present. Sinus rhythm was no longer with junctional escape complexes. QT interval was shortened. A chest x-ray showed severe pneumoperitoneum, low lung volumes and probable atelectasis and/or scarring along the diaphragmatic domes. Enteric tube appeared to terminate near the gastroesophageal junction; in proper place. A computerized tomography angiogram (CTA) of the chest showed no evidence of pulmonary emboli. Tremendous amount of pneumoperitoneum was noted. CTA was reviewed with concerns for significant amounts of free air, decreasing lung volumes and intrathoracic pathology. He was later reported in pulseless electrical activity – ventricular arrhythmia. Advanced Cardiovascular Life Support was initiated with medication, defibrillation and intubation. He received six rounds of epinephrine, cardioversion, calcium chloride and sodium bicarbonate. He was also treated with 100 units of vasopressin in sodium chloride 0.9 percent (%) infusion. Return of spontaneous circulation was achieved. He responded well to intravenous and oral diltiazem and rhythm was obtained after defibrillation. Fraction of inspired oxygen was at 100 %. Vital signs included blood pressure 109/69, 84/69 at 11:23, 93/64 at 15:08 and 79/54 at 16:15, pulse 142 at 11:32, 98 at 15:08 and 135 at 16:15, oxygen saturation 88%, 92% at 11:32, 89% at 15:08 and 88% at 16:15, respiratory rate 23 at 15:08 and 24 at 16:15, oral temperature 97.5 degrees Fahrenheit (36.4 degrees Celsius (C)) and 97.7 F (36.5 C) at 12:49. Laboratory test results included arterial blood gases showed significant metabolic acidosis with pH of 6.8, complete blood count showed signs of leukocytosis, carbon dioxide 18mmol/L (24-31), glucose 310 mg/dL and 172 mg/dL (75-110), creatinine 1.6 mg/dL and 2.9 mg/dL (0.5-1.4), blood urea nitrogen 23 mg/dL and 29 mg/dL (8-21), anion gap 17 mmol/L and 19 mmol/L (5-16), osmolality 297.0 mOsm/Kg and 304.0 mOsm/Kg (267-293), lipase 181, pro-time 11.6 seconds and 12.9 seconds (9.3-11.5), international normalised ratio 1.2 (0.9-1.1), activated partial thromboplastin time 24.1, mean corpuscular hemoglobin 23.4pg (26-34), mean corpuscular haemoglobin concentration 29.3 g/dL (31-35.5), mean platelet volume 8.9% (9-12.5), neutrophils 76.5% (42-75), troponin 50.9 ng/L and 134.8 ng/L (<=47), total protein 5.7 g/dL (6-8), delta from baseline 40.2 and 124.1 (<6.1), pH, arterial 6.88 and 7.24 (7.35-7.45), partial carbon dioxide, arterial 74 mmHg and 52 mmHg (35-48), partial oxygen, arterial 72 mmHg (83-108), bicarbonate 8.8 mmol/L (18-23), oxygen saturation, arterial 81% and 23% (95-98), base excess, arterial <-5.0 mmol/L, lactic acid, blood 11.6 mmol/L (0.5-2.2), globulin 1.9 g/dL (2.2-4.0), aspartate aminotransferase 91 IU/L (10-41), alanine aminotransferase 66 IU/L (3-38) and hemoglobin A1C 6.3. Covid-19 SARS Coronavirus test by nasopharyngeal swab was negative. A urinalysis showed trace protein (negative) and glucose (negative). Urinalysis microscope only showed few bacteria urine (none) and RBC urine 5-10 (0-2). General surgery was consulted. It was advised he be transferred to a tertiary center due to the type of perforation with intrathoracic abdominal contents, however he was not stable enough for transfer. A plan of care was discussed. The subject's wife desired he be made comfortable instead of going through surgery and it was decided to keep him intubated. He was made 'Do-not-resuscitate' in the event of ventricular arrhythmia. He was admitted to the intensive care unit to wait for family to arrive and withdraw care. Per the granddaughter's report, the subject was admitted to the hospital for esophageal hernia and it progressed very quickly. She also reported that it "went to his lungs".

On 03 Oct 2020, treatment included intravenous fentanyl for abdominal pain. The subject expired at 03:20 surrounded by his family.

FDA-CBER-2022-1614-4434440

Problem list included and intra-abdominal perforation, pneumoperitoneum, cardiac arrest, cardiogenic shock, A-fib with rapid ventricular response, severe metabolic acidosis, and respiratory acidosis.

Action taken with study drug dosing was not applicable as the subject died.

The subject died on 03 Oct 2020. The cause of death was reported as pneumoperitoneum, presumed intra-abdominal perforation that led to cardiac arrest. It was unknown if an autopsy was performed.

The investigator assessed the event, pneumoperitoneum, presumed intra-abdominal perforation, as not related to study drug or study procedure.

Follow-up received on 15 Oct 2020 included updated treatment and autopsy details.

Follow-up received on 22 Oct 2020 included discharge summary which included updated event term to intra-abdominal perforation (previously pneumoperitoneum, presumed intra-abdominal perforation) and updated medical history. The discharge summary provided history of presenting illness, laboratory test details, treatment details and course of illness. The site confirmed, per Principle Investigator, result of intra-abdominal perforation was cardiac arrest and confirmed intra-abdominal perforation location was in the stomach and colon.

Follow-up information received on 05 Nov 2020, 06 Nov 2020 and 10 Nov 2020 included clarification of medical history hiatal hernia and updated action taken (previously none). The investigator confirmed that A-fib with rapid ventricular response, cardiac arrest and cardiogenic shock were not considered separate serious adverse events.

Follow-up information received on 13 Nov 2020 included updated action taken with study drug.

Case Comment/Sender's Comment:

This case concerns a 75 year old male subject with medical history of hiatal hernia who experienced an unexpected event of intra-abdominal perforation. The event occurred 12 days after the initial dose of the study medication administration. The event was considered unrelated to the study medication in agreement with the Investigator's assessment.

B6. LABORATORY DATA

#	Date	Test / Assessment / Notes	Results	Normal High / Low
1	10/02/2020	Activated partial thromboplastin time	24.1	
2	10/02/2020	Alanine aminotransferase IU/L	68 OTHER	38 3
3	10/02/2020	Angiogram Showed evidence of pulmonary emboli. Tremendous amount of pneumoperitoneum was noted as described.		
4	10/02/2020	Anion gap 19	17 millimole per litre	16 5
5	10/02/2020	Aspartate aminotransferase IU/L	91 OTHER	40 10
6	10/02/2020	Base excess	<-5.0 millimole per litre	2 -2
7	10/02/2020	Blood bicarbonate	8.8 millimole per litre	23 18
8	10/02/2020	Blood creatinine 2.9	1.6 mg/dl	1.4 0.5 FDA-CBER-2022-1614-4434441

9	10/02/2020	Blood glucose	310 mg/dl	110 75
		172		
10	10/02/2020	Blood lactic acid	11.6 millimole per litre	2.2 0.5
11	10/02/2020	Blood osmolarity	297.0 mOsm/Kg	293 267
		304.0		
12	10/02/2020	Blood pH	6.88	7.45 7.35
		7.24		
13	10/02/2020	Blood pressure measurement	109/69 mmHg	
		right arm, lying		
		84/69 at 11:32		
		93/64 At 15:08		
		79/54 At 16:15		
14	10/02/2020	Blood urea	23 mg/dl	21 8
		29		
15	10/02/2020	Body temperature	97.5 °F	
		36.4 °C		
		97.7 (36.5 °C) at 12:49		
16	10/02/2020	Carbon dioxide	18 millimole per litre	31 24
17	10/02/2020	Chest X-ray		
		Showed severe pneumoperitoneum, low lung volumes and probable atelectasis and/or scarring along the diaphragmatic domes. Enteric tube appeared to terminate near the gastroesophageal junction; in proper place.		
18	10/02/2020	Electrocardiogram		
		In normal sinus showed no signs of acute ischemia. Impression: Sinus tachycardia. Rightward axis. Could not rule out inferior infarct (cited on or before 02-Oct-2020) Abnormal ECG. (when compared with ECG of 02-Oct-2020 11:50, unconfirmed) premature ventricular complexes were no longer present. Premature supraventricular complexes were no longer present. Sinus rhythm was no longer with junctional escape complexes. QT was shortened.		
19	10/02/2020	Fraction of inspired oxygen	100 percent	
20	10/02/2020	Globulin	1.9 g/dL	4.0 2.2
21	10/02/2020	Glycosylated haemoglobin	6.3	
22	10/02/2020	Heart rate	0 /min	
		142 at 11:32		
		98 at 15:08		

135 at 16:15

23	10/02/2020	International normalised ratio	1.2	1.1 0.9
24	10/02/2020	Lipase	181	
25	10/02/2020	Mean cell haemoglobin	23.4 picogram	34 26
26	10/02/2020	Mean cell haemoglobin concentration	29.3 g/dL	35.5 31
27	10/02/2020	Mean platelet volume	8.9 percent	12.5 9
28	10/02/2020	Neutrophil count	76.5 percent	75 42
29	10/02/2020	Oxygen saturation	88 percent	
		92 at 11:32		
		89 at 15:08		
		88 at 16:15		
30	10/02/2020	Oxygen saturation	72 mmHg	108 83
31	10/02/2020	Oxygen saturation	81 percent	98 95
		93		
32	10/02/2020	PCO2	74 mmHg	48 35
		52		
33	10/02/2020	Physical examination		
		Appeared well-developed and well-nourished, in no distress. Head was normocephalic and atraumatic, eyes with normal conjunctivae, no sclera icterus. Neck was supple with no thyromegaly present. Cardiovascular was tachy and irregular, and he was in respiratory distress. Intubated.		
34	10/02/2020	Protein total	5.7 g/dL	8.0 6.0
35	10/02/2020	Prothrombin time	11.6 Second	11.5 9.3
36	10/02/2020	Respiratory rate	5	
		23 at 11:32		
		23 at 15:08		
		24 at 16:15		
37	10/02/2020	SARS-CoV-2 test		
		Negative		
		Nasopharyngeal swab		
38	10/02/2020	Troponin	50.9 ng/L	<=47
		134.8		
39	10/02/2020	Urine analysis		Negative
		Protein urine - Trace		FDA-CBER-2022-1614-4434443

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Glucose urine - Trace

40	10/02/2020	Urine analysis	
		Bacteria urine - Few (none)	
		RBC urine - 5-10 (0-2)	
41	10/02/2020	pH body fluid	6.8

B7. OTHER RELEVANT HISTORY

#	Start/Stop Date	Condition Type / Condition	Notes
1	--/--/2018 Ongoing	Current Condition Gout	Both feet
2	--/--/2019 Ongoing	Current Condition Urinary retention	
3	--/--/2019 Ongoing	Current Condition Erectile dysfunction	
4	02/21/2020 Ongoing	Current Condition Hiatus hernia	
5	Ongoing	Current Condition Benign prostatic hyperplasia	Per discharge summary
6	Ongoing	Current Condition Gastroesophageal reflux disease	Per discharge summary
7	Ongoing	Current Condition Blood cholesterol increased	Per discharge summary
8		Procedure Knee operation	Per discharge summary
9	UNK --/--/1980	Historical Condition Ex-tobacco user	Per discharge summary; Quit 40 years ago
10	Ongoing	Current Condition Hyperlipidaemia	Per discharge summary
11	Ongoing	Current Condition Post herpetic neuralgia	Per discharge summary
12	Ongoing	Current Condition Type 2 diabetes mellitus	Per discharge summary

C4. DIAGNOSIS FOR USE (Continued)

#1:COVID-19 vaccination (COVID-19 immunisation)

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C10. CONCOMITANT MEDICAL PRODUCTS (Continued)

3) TADALAFIL (TADALAFIL) --/--/2019 to ongoing