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Kaposi Sarcoma–Associated Herpesvirus Infection and Complications Among Solid Organ Transplant Recipients — United States, January 2021–September 2025

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Abstract

Kaposi sarcoma–associated herpesvirus (KSHV) infection is the cause of Kaposi sarcoma (KS), certain lymphoproliferative disorders, and the inflammatory condition Kaposi sarcoma–associated herpesvirus inflammatory cytokine syndrome (KICS). In solid organ transplant recipients, KSHV-related complications can result from reactivation of latent infection, new posttransplant infection, or transmission of virus from the transplanted organ. However, testing of donors and recipients is not routinely performed. During January 2021–September 2025, after transplantation of 185 organs into 153 recipients, 46 deceased donors were identified whose transplanted organs were suspected of having transmitted KSHV, approximately five times the number of such donors (nine) reported during 2016–2020. As of February 2026, a posttransplantation KSHV infection has been identified among 74 (48%) of these 153 transplant recipients. Among the 74 recipients with KSHV infection, 45 (61%) developed KS; 10 (14%) of these recipients with KS also developed a lymphoproliferative disorder (multicentric Castleman disease [eight], posttransplant lymphoproliferative disorder [one], and primary effusion lymphoma [one]) and six (8%) developed KICS; four (5%) recipients developed a lymphoproliferative disorder alone (primary effusion lymphoma [one] and posttransplant lymphoproliferative disorder [three]); and one (1%) developed KICS alone. To date, 25 (16%) of the 153 transplant recipients have died. Most donors and recipients were HIV-negative, and nonmedical drug use was common among donors. Clinicians should maintain a high index of suspicion for KSHV in transplant recipients, particularly when donors have risk factors including nonmedical drug use, or when another recipient from the same donor is found to be infected. Development and implementation of effective testing strategies and timely reporting could guide clinical management, reduce risk for KSHV-related complications, and improve transplant safety.

Introduction

Infection with Kaposi sarcoma–associated herpesvirus (KSHV), also known as human herpesvirus 8, is the cause of Kaposi sarcoma (KS), certain lymphoproliferative disorders (including multicentric Castleman disease and primary effusion lymphoma), and Kaposi sarcoma–associated herpesvirus inflammatory cytokine syndrome (KICS), a recently described inflammatory condition resembling severe sepsis that affects persons infected with KSHV (*1*,*2*). In solid organ transplant recipients, posttransplantation KSHV-related complications can result from 1) reactivation of latent infection, 2) new

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posttransplantation infection, or 3) transmission of KSHV from the transplanted organ (*3*). Because transplant recipients receive immunosuppressive medication to prevent graft rejection, infection in these persons can be severe and result in death. However, although testing of deceased donors is required for certain infectious diseases, testing of donors and recipients for KSHV is not routinely performed, given the limited availability of commercially available tests and the current absence of consensus screening guidelines.

In 2021, CDC reported KSHV transmission through solid organ transplantation involving six donors investigated during 2018–2020 (a subset of nine total cases referred during that time). In these clusters, four (29%) of 14 recipients who developed donor-derived infection died (*3*).

During January 2021–September 2025, transplanted organs from 46 deceased donors were suspected of having transmitted KSHV, approximately five times the nine such cases reported during 2016–2020. To date, a total of 185 organs implicated in KSHV transmission have been transplanted into 153 recipients from these 46 deceased donors. Among transplant recipients, a posttransplantation KSHV infection has been identified in 74 (48%). This report describes preliminary findings from ongoing CDC investigations of suspected solid organ donor–derived KSHV infections and associated complications in U.S. transplant recipients. Additional interventions are necessary to reduce the risk for transplant-associated KSHV complications.

Methods

Data Source

Transplant centers are required to report any suspected, unexpected organ donor–derived infectious disease or malignancy to the Organ Procurement Transplantation Network (OPTN).* CDC investigated all reports of suspected organ donor–derived KSHV infection based on review of medical records and laboratory testing of donor and recipient specimens that were referred to OPTN during January 2021–September 2025.

Data Analysis

A descriptive analysis was conducted based on abstraction and review of donor and transplant recipient medical records, including data on age, sex, sexual orientation, underlying medical conditions, HIV infection status, Public Health Service risk factors (including men who have sex with men [MSM] and incarceration for ≥72 hours), and risk factors for KSHV transmission, including history of nonmedical inhalation or intravenous drug use (*4*–*6*). Donor archived serum or plasma and recipient tissue, serum, or plasma specimens were tested

*The OPTN Disease Transmission Advisory Committee investigates reports of unexpected transmission of infection or malignancy through solid organ transplantation. Transplant centers are required to report any suspected, unexpected organ donor–derived infectious disease or malignancy to OPTN. A subset of these cases are investigated by CDC, including those with substantial public health significance or severe outcomes, or involving multiple transplant recipients.

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for KSHV by commercial laboratories, academic tertiary referral centers, or other reference laboratories using serologic, molecular, or immunohistochemical assays. This activity was reviewed by CDC, deemed not research, and was conducted consistent with applicable federal law and CDC policy.[†]

Results

Reported Cases of Posttransplant KSHV-Related Complications

A total of 185 solid organs implicated in KSHV transmission were recovered from 46 deceased donors and transplanted into 153 recipients (Figure 1). During January 2021–September 2025, CDC received 46 reports of transplant recipients who developed KSHV-related complications suspected to be derived from organ donors (index recipients), representing an approximately 500% increase over the nine cases reported during the previous 5-year period (2016–2020) (Figure 2). During investigation of these cases, an additional 28 organ recipients with KSHV-related complications were identified; follow-up of other recipients from these 46 donors, including clinical and KSHV infection status, is ongoing (Figure 1).

Donor Characteristics

The median age of the 46 deceased donors was 38.5 years (IQR = 31–51 years), 67% (31) were male, 33% (15) were MSM, and 96% (44) were HIV-negative[§] (Table). Thirty-one (67%) donors had a history of nonmedical inhalation[¶] or injection drug use, and eight (17%) had a history of incarceration. Of the 29 donors who had testing completed after organ procurement, 25 (86%) received a positive molecular or serologic KSHV test result and four (14%) received negative test results by both assays.

Recipient Characteristics

The median age of the 153 transplant recipients was 58.5 years (IQR = 49–65 years), 50% (76) were male, 1% (two) were MSM, and 98% (150) were HIV-negative. Among all 153 recipients, 48% (74, including 30% [46] of index recipients and 16% [28] identified through investigation) received a positive posttransplant KSHV test result by molecular, serologic or immunohistochemical assay, and 8% (13) received negative results on at least two assays.

[†] 45 C.F.R. part 46.102(l)(2), 21 C.F.R. part 56; 42 U.S.C. Sect. 241(d); 5 U.S.C. Sect. 552a; 44 U.S.C. Sect. 3501 et seq.

[§] The HIV Organ Policy Equity Act (HOPE Act) allows for transplantation of organs from HIV-positive donors to HIV-positive recipients.

[¶] Inhalation drug use included documented use of methamphetamine, cocaine, marijuana, or alkylnitrates.

Summary

What is already known about this topic?

Kaposi sarcoma–associated herpesvirus (KSHV) is the cause of Kaposi sarcoma and certain lymphoproliferative disorders. In solid organ transplant recipients, KSHV-related complications can result from reactivation of latent infection, new posttransplant infection, or transmission of virus from the donated organ.

What is added by this report?

During January 2021–September 2025, 46 cases of suspected donor-derived KSHV-related complications were reported among transplant recipients, compared with nine during 2016–2020. Most donors and recipients were HIV-negative, and two thirds of donors had a history of nonmedical inhalation or injection drug use.

What are the implications for public health practice?

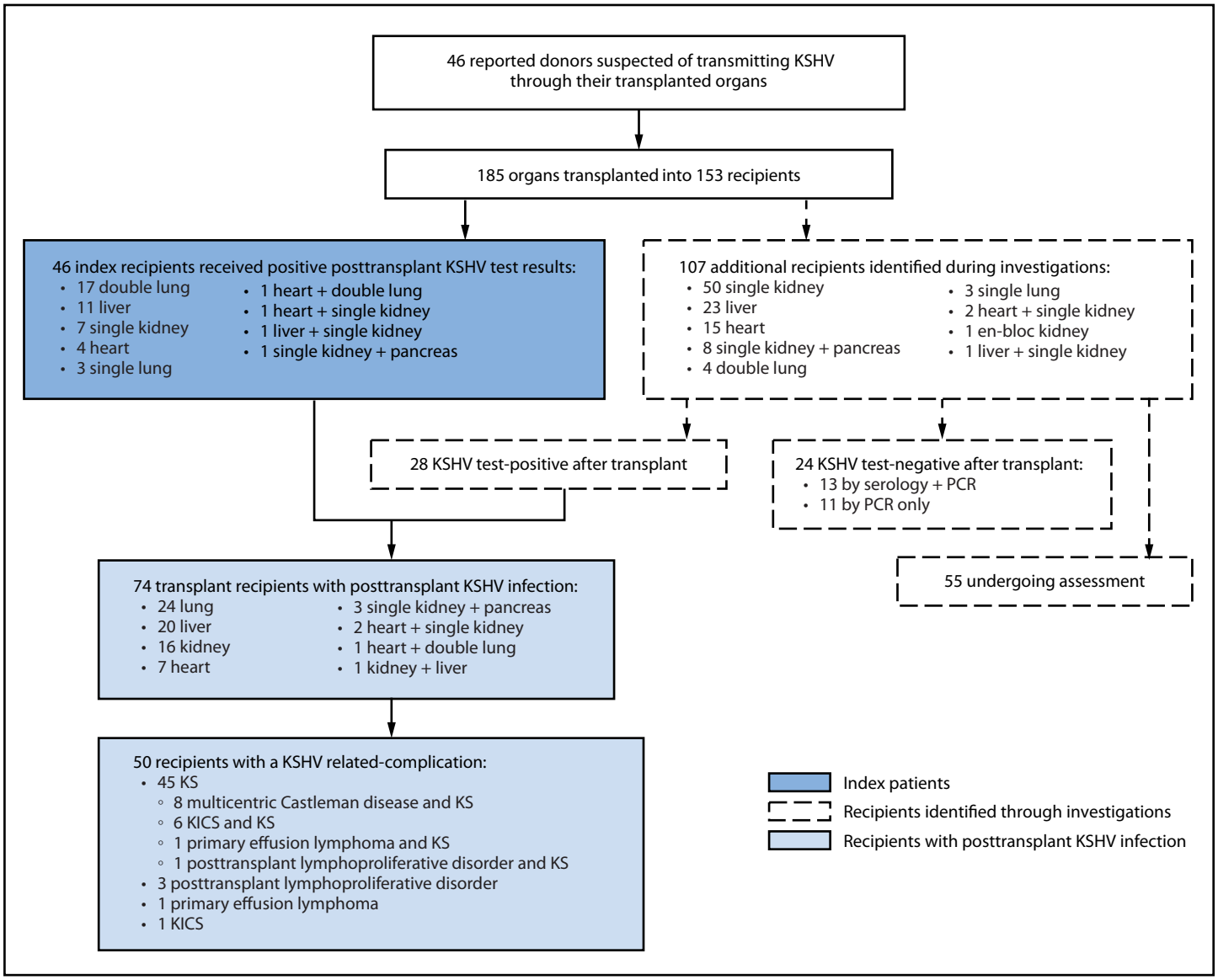
Maintaining a high level of suspicion for KSHV infection by clinicians caring for organ transplant recipients could facilitate prompt diagnosis and reporting. Development of donor screening assays could help guide clinical management to mitigate recipient KSHV-related complications.

The highest percentage of recipients who received a positive KSHV test result posttransplant (86%) included those who received a lung from a donor whose organs were suspected of having transmitted KSHV, followed by recipients of a liver (57%), heart (30%), or kidney (22%). Among the 74 recipients with KSHV infection, 45 (61%) developed KS; 10 (14%) of these recipients with KS also developed a lymphoproliferative disorder (multicentric Castleman disease [eight], posttransplant lymphoproliferative disorder [one], and primary effusion lymphoma [one]) and six (8%) developed KICS; four (5%) recipients developed a lymphoproliferative disorder alone (primary effusion lymphoma [one] and posttransplant lymphoproliferative disorder [three]); and one (1%) developed KICS alone. To date, 25 (16%) recipients have died, although the relative contribution of KSHV to these patient deaths remains under investigation. The median interval from date of transplantation to initial clinical manifestation was 208 days (IQR = 162–332 days).

Discussion

CDC-led investigations first identified an increase in reports of suspected organ donor–derived KSHV infection during 2018–2020 (*3*). Since then, reports of suspected organ donor–derived KSHV infections and related complications among transplant recipients have continued to increase. KSHV transmission in the United States has historically been associated with MSM or with persons with HIV (*1*,*3*); however, in this series of cases, most organ donors and recipients were

FIGURE 1. Reports of organ donor–derived Kaposi sarcoma–associated herpesvirus among transplant recipients (n = 46) and investigation of additional recipients* — United States, January 2021–September 2025



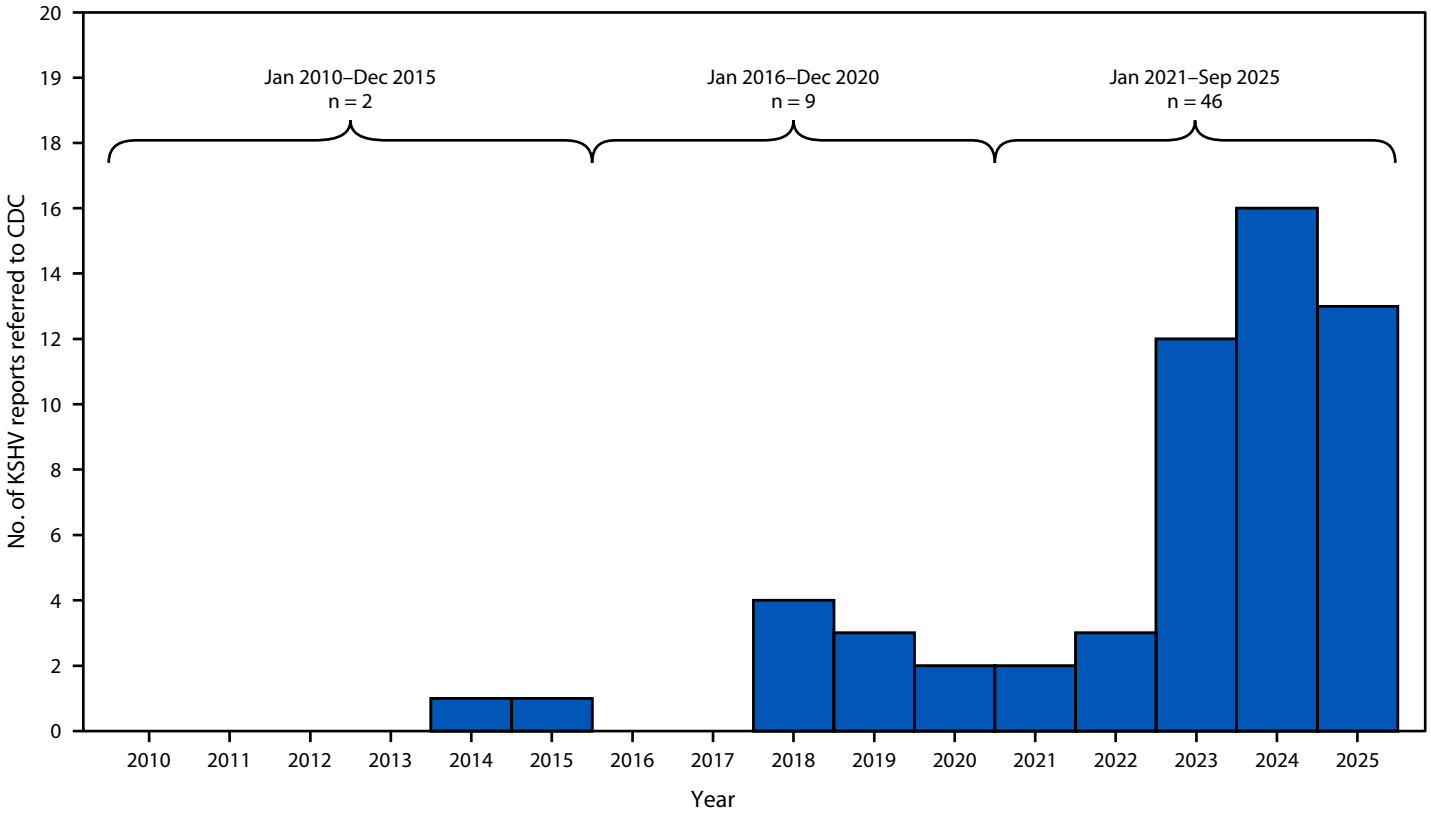
Abbreviations: KICS = Kaposi sarcoma–associated herpesvirus inflammatory cytokine syndrome; KS = Kaposi sarcoma; KSHV = Kaposi sarcoma–associated herpesvirus; PCR = polymerase chain reaction.

* Retrospective KSHV testing of the 46 donors whose organs were associated with posttransplant donor organ KSHV infection identified 25 (54%) who received positive results and four (9%) who received negative results; organs from 17 (37%) donors had not been tested.

HIV-negative and were not MSM. Nonmedical injection and inhalation drug use have been increasingly recognized as a risk factor for KSHV transmission (*3*,*4*,*6*). In the United States, the percentage of all deceased donors whose mechanism of death was acute drug intoxication increased from 4% in 2010 to a peak of 17% in 2023, likely reflecting the impact of the opioid epidemic. A history of substance abuse in organ donors might contribute to increased risk for KSHV transmission to recipients, although this association might be confounded by undisclosed sexual behaviors.

Limited commercial availability of KSHV assays, particularly serology, has hindered surveillance and tracking of donor-derived infections (*7*). Strategies are needed to increase testing capacity to enable routine organ donor screening and could help mitigate KSHV-related complications among transplant recipients. Clinicians caring for solid organ transplant recipients should maintain a high index of suspicion for KSHV and related complications including KICS, symptoms of which might be similar to those of culture-negative sepsis (*1*), and consider testing when 1) donors have risk factors for KSHV,

FIGURE 2. Number of reports* of suspected organ donor–derived Kaposi sarcoma–associated herpesvirus infections in transplant recipients (N = 57) — United States, January 2010–September 2025†



Abbreviation: KSHV = Kaposi sarcoma–associated herpesvirus.
* Each report represents the index recipient first identified with a KSHV-related complication.
† Partial year of data through September 2025.

2) donor KSHV infections are identified, or 3) another transplant recipient who received an organ from the same donor has evidence of KSHV infection. When histopathological evaluation is unavailable, transplant recipient testing should include both molecular and serologic assays when possible; at a minimum, serologic testing should be performed to detect infection because 1) molecular assays might not identify recipient infections and 2) the ability to detect KSHV DNA in blood is episodic (*8*).

Limitations

The findings in this report are subject to at least four limitations. First, only reports of suspected organ donor–derived KSHV-related complications were investigated; because investigation requires clinical suspicion that the infection was associated with the donor organ, cases might have been underreported. Second, information about deceased organ donors is reliant on next-of-kin interviews, which might not accurately capture certain behavioral characteristics. Third, not all transplant recipients were tested for KSHV using both a molecular and a serologic assay, and some recipients might decline testing, which could have lead to an underestimation of the true number of recipient infections in this report. Finally, KSHV infection in the donor does not rule out recipient reactivation or new posttransplant infection. Additional testing of recipient pretransplant specimens could help to better elucidate the role of donor-derived infection.

Implications for Public Health Practice

Reports of donor-derived KSHV infection are relatively uncommon. Clinicians and transplant centers should promptly report suspected donor-derived KSHV infections to OPTN. In general, the benefits of transplantation outweigh the risk for infection, with donor-derived transmission occurring among fewer than 0.5% of all transplant recipients (*9*). The number of persons awaiting transplantation far exceeds the number of available organs. Organs from donors with risk factors for infectious diseases, including KSHV, may still be used safely (*10*). This public health investigation is currently ongoing with additional donor and recipient testing results pending. CDC is working with partners to develop strategies to enhance transplantation safety and reduce the impact of KSHV infection.

TABLE. Characteristics of organ transplant recipients and deceased solid organ donors whose organs are suspected of having transmitted Kaposi sarcoma–associated herpesvirus — United States, January 2021–September 2025

Characteristic	No. (column %) Donor n = 46	Recipient n = 153
Median age, yrs (IQR)	38.5 (31–51)	58.5 (49–65)
Male sex	31 (67)	76 (50)
Men who have sex with men	15 (33)	2 (1)
HIV-negative	44 (96)	150 (98)
History of nonmedical inhalation or injection drug use	31 (67)	NA
History of incarceration	8 (17)	NA
Testing completed after organ procurement	**29 (64)**	**87 (57)***
Negative molecular or serologic KSHV test result	4 (14)†	13 (15)†
Positive molecular or serologic KSHV test result	25 (86)†	74 (85)†,§
Positive recipient KSHV test result by organ received, n/N (%)		
Lung	NA	24/28 (86)
Liver	NA	20/35 (57)
Heart	NA	7/23 (30)
Kidney	NA	16/72 (22)
Recipient death	**NA**	**25/153 (16)**
Postinfection KSHV-related complication, n/N (%)		
Kaposi sarcoma	NA	45/153 (29)
Multicentric Castleman disease and Kaposi sarcoma¶	NA	8/45 (18)
KICS and Kaposi sarcoma¶	NA	6/45 (13)
Posttransplant lymphoproliferative disorder and Kaposi sarcoma¶	NA	2/45 (4)
Posttransplant lymphoproliferative disorder	NA	4/153 (3)
KICS	NA	1/153 (1)

Abbreviations: KICS = Kaposi sarcoma–associated inflammatory cytokine syndrome; KSHV = Kaposi sarcoma–associated herpesvirus; NA = not applicable.
* Testing of all 153 recipients is incomplete and ongoing.
† Percentages calculated from among those who had received testing as of February 2026 (i.e., 29 donors and 87 recipients).
§ Includes 46 (62%) index recipients and 28 (38%) recipients identified through investigation.
¶ Percentages calculated from among the 45 recipients who received a diagnosis of Kaposi sarcoma.

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Notes from the Field

Congenital Rubella Syndrome — Florida, 2025

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In July 2025, a Florida hospital notified the Florida Department of Health (FDOH) of a case of suspected congenital rubella syndrome (CRS) in a male infant aged 6 days. The infant, born at 40 weeks' gestation, was small for gestational age (SGA)* and had microcephaly. During the first day of life, he developed respiratory distress, cyanosis, thrombocytopenia, and a generalized rash and was admitted to the birth hospital's neonatal intensive care unit (NICU), where a congenital heart defect (patent ductus arteriosus [PDA]), cataracts, and hearing defects were also identified. Serology testing on day 4 of life detected antirubella immunoglobulin (Ig) M antibodies. Nasopharyngeal swabs collected on day 6 of life were sent to the state's public health laboratory, where rubella virus was identified by polymerase chain reaction, confirming the diagnosis of CRS. This activity was reviewed by CDC, deemed not research, and was conducted consistent with applicable federal law and CDC policy.†

Investigation and Outcomes

Mother's Vaccination Status and Illness

The infant's mother, a South African citizen aged 23 years, had lived in Florida since 2023. She reported that she had received all recommended childhood vaccinations in South Africa; however, because South Africa did not include rubella-containing vaccine (RCV) in the routine childhood immunization schedule until 2024, she was presumably not vaccinated against rubella. She visited South Africa during June 2024 and returned to Florida on September 25. On October 12, she was examined at an urgent care center with cough, nasal congestion, cervical lymphadenopathy, arthralgias, myalgias, and a rash. Rubella was not suspected, and she received a diagnosis of an unspecified viral illness.

Pregnancy and Prenatal Care

Pregnancy was confirmed 1 month later, on November 11; a follow-up obstetric visit on November 26 estimated the gestational age to be 9 weeks, 4 days, based on the patient's most recent menstrual period. On December 11, maternal prenatal screening demonstrated the presence of antibodies to rubella virus, providing evidence of previous infection or vaccination. During the patient's pregnancy, she received adequate prenatal care with multiple prenatal visits and fetal ultrasound examinations; at the 20-week ultrasound, the fetus was noted to be SGA.

Infant's Birth and Hospital Course

When the infant was born, providers identified a constellation of signs associated with CRS, including SGA, microcephaly, rash, cataracts, and PDA. The child was immediately placed on contact precautions and admitted to the NICU, where he underwent serologic and virologic testing to confirm the diagnosis of CRS. On the 12th day of life, he was transferred to another facility for advanced NICU care and surgical repair of the PDA. He underwent extensive evaluation and was discharged home after 40 days with referrals for specialist follow-up care. Based on findings from the investigation, the mother was most likely infected with rubella virus during the first 3 weeks of pregnancy. Genotyping by CDC of the isolate obtained from the infant identified rubella virus genotype 2B, with sequences closely related to strains circulating in South Africa during 2024 (Global Measles and Rubella Laboratory Network, Rubella Virus Nucleotide Surveillance, unpublished data, 2024).

Children born with CRS are considered infectious until age 12 months, or until they receive two negative rubella virus polymerase chain reaction test results from samples collected 1 month apart (*1*). FDOH staff members contacted outpatient care providers regarding guidance on contact precautions. On October 28, testing at the FDOH laboratory confirmed that the child was no longer infectious. Contact tracing identified 22 hospital staff members who had had close contact with the child, all of whom had evidence of immunity (positive rubella antibody titers or documentation of rubella vaccination).

Preliminary Conclusions and Actions

After an incubation period of 12–23 days, symptomatic infection with rubella virus results in a mild febrile rash illness; 25%–50% of infections are asymptomatic (*1*). However, infection during pregnancy, particularly during the first trimester, can result in CRS and is a leading cause of vaccine-preventable birth defects worldwide (*2*). During 2004, rubella and CRS were declared eliminated from the United States, although travel-associated infections and importations occur (*3*). Despite substantial progress toward global elimination in the previous

* Birth weight of 6.48 lbs (2,940 g); a full-term male infant has a median birth weight of approximately 7.72 lbs (3,500 g).
† 45 C.F.R. part 46.102(l)(2), 21 C.F.R. part 56; 42 U.S.C. Sect. 241(d); 5 U.S.C. Sect. 552a; 44 U.S.C. Sect. 3501 et seq.

Summary

What is already known about this topic?

Rubella infection during early pregnancy can result in miscarriage, fetal death, and characteristic birth defects, referred to as congenital rubella syndrome (CRS). Although rubella was declared eliminated from the United States in 2004, the disease remains a leading cause of vaccine-preventable birth defects worldwide.

What is added by this report?

An infant with CRS was born to a mother from a country that had not introduced rubella vaccine. The mother was likely infected during the first trimester of pregnancy, during travel to her home country. The infant had characteristic features of CRS at birth.

What are the implications for public health practice?

Women of reproductive age (15–49 years) without documented rubella immunity should be offered a rubella-containing vaccine before pregnancy. Clinicians should maintain awareness about rubella, especially among patients who develop a febrile rash illness after travel to regions where rubella is endemic.

decade (*2*,*4*), 16 countries do not include RCV in their routine childhood immunization schedule.[§] Rubella remains endemic in South Africa, where a large outbreak (approximately 10,000 cases) occurred during 2024 (Measles/Rubella Dashboard | National Institute for Communicable Diseases). CRS is preventable through vaccination. Women of reproductive age (15–49 years) who do not have documentation of receipt of RCV (e.g., measles, mumps, and rubella vaccine) or other evidence of rubella immunity should be offered rubella vaccination before pregnancy (*1*). Clinicians should consider rubella among persons without evidence of rubella immunity who are evaluated for febrile rash illness, especially after travel to regions where rubella is endemic.

[§] As of December 31, 2025, the following 16 countries did not include RCV in the routine childhood immunization schedule: Afghanistan, Central African Republic, Chad, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Ethiopia, Gabon, Guinea, Guinea-Bissau, Liberia, Madagascar, Niger, Nigeria, Somalia, and South Sudan. Mali, South Africa, and Sudan have added RCV since 2024.

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Notes from the Field

Exposures to Chemical Munitions During Commercial Fishing Operations — New Jersey, 2016–2023

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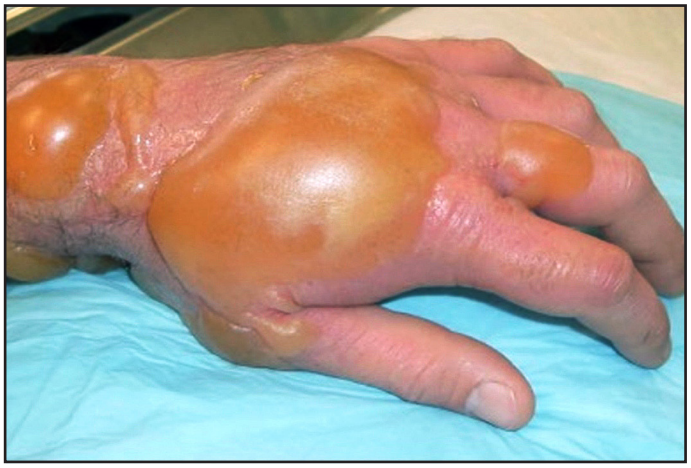
Until 1970, an estimated 17,000 tons of unexploded World War I and World War II chemical warfare munitions (CWMs), weapons designed to disperse toxic chemical agents to cause mass casualties or death, were disposed of off the U.S. Atlantic coast (*1*). Dredging, a commercial fishing method used to harvest seafloor species, occasionally results in the unintentional recovery of CWMs. These events have resulted in severe worker injuries (Figure) and potential food contamination (*2*,*3*). Three events associated with recovered CWMs that caused injuries or food contamination occurred in the mid-Atlantic and New England during 2004–2012 (*2*); this report describes three events that occurred off the New Jersey coast in August 2016, August 2017, and October 2023.

Investigation and Outcomes

Data Source and Analysis

Event details, including CWM specifics and handling, means of exposure, nature of injury and treatment, contamination and destruction of food, and vessel environmental response, were summarized by reviewing medical and billing records, poison control intake notes, correspondence with state and federal agencies, and information obtained from crewmembers.

FIGURE. Example of injury to skin exposed to sulfur mustard–containing chemical warfare munitions*



Photo/U.S. Air Force

* This photograph is an example and does not depict any persons described in this report.

This activity was reviewed by CDC, deemed not research, and was conducted consistent with applicable federal law and CDC policy.*

Six crewmembers were exposed in the three events; all documented injuries were consistent with exposure to mustard agent (sulfur mustard), a chemical warfare vesicant that causes blistering of the skin and mucous membranes on contact. For each incident, information about all affected crewmembers is described. In all cases, shellfish processing plants fully cooperated during food destruction.

Exposure Events

August 2016. A commercial fishing vessel dredged a ruptured CWM off the coast of Atlantic City. When discovered on the conveyor belt, the munition was thrown overboard by a crewmember who subsequently experienced second-degree burns and large fluid-filled vesicles on the arms, necessitating burn center hospitalization, skin grafting, and physical therapy (*3*). Delays in communication among agencies resulted in the entry of clams that had been dredged with the CWM into production. This resulted in a recall of 192 cases of clam chowder base and subsequent destruction of 704 cases of affected clams. No affected clams were distributed into commerce. Testing performed by the U.S. Coast Guard's (USCG) Atlantic Strike Team (AST) confirmed no residual contamination aboard the vessel.

August 2017. A commercial fishing vessel dredged a crate of 20 sulfur mustard canisters off the coast of Long Branch. The crate broke open on the ship's sorting belt, exposing three crewmembers. All canisters were thrown overboard using a magnet. One crewmember who disentangled a CWM from fishing gear experienced second-degree burns to the forearms and was prescribed burn cream and an oral antibiotic and advised to follow up with a burn center. The remaining two crewmembers were uninjured. After the New Jersey Department of Health was notified, approximately 5,300 bushels of purchased surf clams in 168 cages were embargoed, sanitized, destroyed, and disposed of in a landfill. Communication between the health department and the shellfish processing plant prevented transport of the clams to the plant. AST vessel testing found no residual contamination.

October 2023. A fishing vessel dredged a leaking CWM off the coast of Cape May, exposing two crewmembers. One crewmember threw the CWM overboard and required overnight emergency department treatment for respiratory distress and

* 45 C.F.R. part 46.102(l)(2), 21 C.F.R. part 56; 42 U.S.C. Sect. 241(d); 5 U.S.C. Sect. 552a; 44 U.S.C.

Summary

What is already known about this topic?

Until 1970, unexploded chemical warfare munitions (CWMs), including sulfur mustard (mustard gas) from World War I and World War II, were disposed of at sea. Commercial fishing vessels occasionally inadvertently dredge sea-disposed CWMs, exposing workers and risking health and safety.

What is added by this report?

Three incidents of recovered CWMs in New Jersey waters occurred in 2016, 2017, and 2023, resulting in severe worker injuries and large-scale food product destruction.

What are the implications for public health practice?

The risk for inadvertent recovery of sea-disposed CWMs continues while munitions remain on the seafloor. Prioritizing avoidance of documented dump sites followed by engineering and administrative measures, interagency coordination, training, and use of personal protective equipment are recommended to mitigate the risk for future injuries and food contamination.

second-degree burns to the arm and neck. Treatment included supportive care, antibiotics, and guidance for treating burns. The crewmember was anticipated to make a full recovery; however, additional follow-up information is not available. The second crewmember was in the wheelhouse (the enclosed elevated control center of the boat) and experienced a burning sensation on the face but did not require medical treatment. Although no clams entered processing, delayed notification over a holiday weekend prevented prompt destruction. Approximately 32 bushels of surf clams in 22 cages were segregated, destroyed, and disposed of in a landfill. The vessel was sanitized, and AST testing found no residual contamination.

Preliminary Conclusions and Actions

Recovered CWMs continue to pose worker and food safety risks. Because of ocean drift, storms, and offshore industries, sea-disposed CWMs locations are largely unknown and potentially far from their originally documented dump site. In the absence of knowledge about the stability of dredged CWMs, throwing these items overboard remains the safest option for fishing crews; however, this practice risks future recovery and exposure. Although U.S. law addresses hazardous materials broadly, CWMs that have remained underwater for extended periods are generally considered abandoned and degraded to the point that they are no longer treated as military weapons, and U.S. law does not require their active recovery or destruction.

Because responses to retrieved sea-disposed CWMs involve USCG, the Food and Drug Administration, state agencies, and fishing and seafood operations, responses are complex and time-consuming. Maintaining robust channels of communication among these entities might reduce risks for worker harm and prevent the occurrence of foodborne illness from sea-disposed CWMs.

Efforts to prevent CWMs encounters include avoiding documented dumping areas (*4*), engineering procedures (e.g., containment and magnet-assisted sorting), administrative measures (e.g., exposure prevention policies); and use of personal protective equipment (*5*). When a worker has a suspected CWMs encounter, safety should be prioritized by following the steps detailed in the Recognize, Retreat, and Report guidelines (*5*), including documenting the dump location. All workers should have adequate personal protective equipment and receive training in safe handling of recovered CWMs to prevent or limit exposure (Recovery of Sea-Disposed Chemical Warfare Material | CDC). Prompt care and reporting are crucial for worker health and food safety.

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