



## FACTUAL HISTORY

This case has previously been on appeal before the Board.<sup>2</sup> In an October 6, 2010 decision, the Board found that the case was not in posture for a decision as to whether the employee's death was causally related his employment. The Board noted that, on February 4, 2008, less than six months before the employee's death, an OWCP medical adviser reviewed the record and recommended the employee's referral to an internist specializing in infectious diseases to further develop whether osteomyelitis was work related. The Board remanded the case for referral of the case record and a statement of accepted facts to an appropriate medical specialist for review and a rationalized opinion on whether the employee's July 23, 2008 death was contributed to by his federal employment. The Board directed OWCP to issue a *de novo* decision after such development. The facts and history contained in the prior appeal are incorporated by reference. Relevant prior evidence will be set forth as appropriate.<sup>3</sup>

In a March 29, 2004 hospital discharge report, Dr. Jigar Patel, a Board-certified internist, noted that the employee was originally admitted for osteomyelitis and methicillin sensitive staphylococcus aureus bacteremia secondary to his osteomyelitis. He noted that the employee was thought to have contracted this from his history of intravenous (IV) drug abuse. Dr. Patel noted that the employee was treated with IV antibiotics and prescribed nafcillin for six weeks. He advised that pain service was involved with the employee's back pain. In an addendum related to the management of the employee's condition, Dr. Patel advised that a magnetic resonance imaging (MRI) scan revealed an abscess in the left psoas muscle and osteomyelitis in the lumbar spine that seemed to envelop the lumbar intervertebral disc. He indicated that the abscess was too small for drainage and it was determined that the employee "would just receive IV antibiotics for the treatment of this abscess and the osteomyelitis."

On August 11, 2007 the employee underwent a decompressive thoracic laminectomy T8-12 and culture and drainage, which was performed by Dr. Wilbur C. Sanford, a treating Board-certified neurosurgeon.

In a November 19, 2007 report, Dr. Sanford noted seeing the employee for postoperative follow up. He explained that after his anterior cervical discectomy and fusion, the employee developed "a terrible infection in his spine, an osteomyelitis. [The employee] developed a transverse myelitis and I had to operate on him." Dr. Sanford noted performing a decompressive thoracic laminectomy from T8-12. He noted that the employee was "uncertain whether the infection was totally cured, but he is stronger."

In an October 7, 2008 report, the coroner, Dr. Steven Trenkle, a Board-certified pathologist and clinical pathologist, listed the employee's cause of death as an accident due to "[c]omplications of chronic osteomyelitis of spine, years, due to blunt force injury of spine, years. Contributing cause: excessive use of pain medication with probable intravenous injection

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<sup>2</sup> Docket No. 10-598 (issued October 6, 2010).

<sup>3</sup> The employee, then a 24-year-old equipment mechanic, filed an occupational disease claim in 1987 that was accepted for bilateral carpal tunnel syndrome, cervical herniation from C4-7 and radiculopathy. This other claim, number xxxxxx552, has been combined with the claim presently before the Board.

of crushed oral medications.” The coroner further explained that “the extensive foreign body pulmonary granulomata with birefringent crystals in perivascular location with multiple foreign body giant cells are consistent with previous episodes of intravenous administration of crushed oral medication.” He also noted that the “nonmedicinal ‘filler’ material used in the pills is trapped by macrophagea as the blood passes through the lungs.” The coroner also added that the “material is often birefringent under polarizing light and often leads to an extensive foreign body granulomata, such as seen in this individual.”

Following the Board’s remand, OWCP on October 25, 2010 referred the file for a second opinion, along with a statement of accepted facts, a set of questions and the medical record to Dr. Steven Hwang, Board-certified in infectious diseases.

In a November 17, 2010 report, Dr. Hwang noted the employee’s history of injury and treatment that included bilateral carpal tunnel syndrome and cervical disc disease. He noted that the employee underwent carpal tunnel release surgeries bilaterally and anterior cervical discectomy with fusion of C6-7 in November 2001. In June 2007, the employee underwent another cervical spine surgery involving removal of his cervical plate at C6-7, along with anterior cervical discectomy and fusion at C4-5. Dr. Hwang noted that the employee developed osteomyelitis with epidural abscess in the lumbar spinal region at L2-3 with a psoas abscess in March 2004 “with Methicillin-sensitive Staphylococcus aureus, that was treated with IV antibiotics alone” and, “importantly, was attributed, according to Dr. Patel ... the [employee’s] ‘history of IV drug abuse.’” He advised that, in August 2007, the employee was reported to have an epidural abscess in T10-12 with discitis and destruction of the vertebral body requiring emergency decompression of the thoracic area and drainage of purulent material from the area, which grew *Serratia marcescens*. Dr. Hwang noted that the employee had “chronic, unresolving osteomyelitis of his spinal vertebrae and, unfortunately, on July 2008, [he] was found dead in his home.” He noted the autopsy report findings which included evidence of multiple pulmonary granulomata with birefringent material consistent with injection of crushed oral medications. Regarding whether the employee’s osteomyelitis was related to the accepted conditions, Dr. Hwang advised that he was unable to find direct evidence that the patient’s osteomyelitis was related to the injury. He attributed the condition to a “history of IV drug abuse.” Dr. Hwang explained that it provided a possible origin for the employee’s spinal infection. He further noted that vertebral osteomyelitis after spinal surgery usually occurred at the site of the actual surgery or in the employee’s case, the cervical area, not the lumbar area. Dr. Hwang opined that the “fact that the lumbar spine was the body area affected suggests a noncontiguous, hematogenous (seeding) route of infection.” He opined that the use of IV drugs would serve to cause bacteremia, which could then seed the lumbar spine with infecting bacteria. Dr. Hwang explained that the diagnostic tests such as the MRI scan and computerized tomography (CT) scan revealed no evidence that the cervical spine was ever infected. He also explained that there was additional evidence that the IV drug abuse caused the bacteremia and thus seeded the lumbar spine with bacteria. Dr. Hwang noted that the employee had “unequivocal pathologic finding on autopsy of the multiple granulomas in the lungs that contained birefringent crystals.” He stated that this latter “finding is pathognomonic of injection into the [employee’s] veins of crushed materials (likely medicine...)” Dr. Hwang opined that there was a “strong clinical suggestion that the injection of drug abuse was the cause of the lumbar osteomyelitis and that this was not related to the conditions accepted on this claim.”

By decision dated December 1, 2010, OWCP denied the claim for compensation. It found that the medical evidence did not demonstrate that the employee's claimed medical condition was related to the established work-related events.

### **LEGAL PRECEDENT**

An award of compensation in a survivor's claim may not be based on surmise, conjecture or speculation or a claimant's belief that the employee's death was caused, precipitated or aggravated by the employment.<sup>4</sup> A claimant has the burden of establishing by the weight of the reliable, probative and substantial medical evidence that the employee's death was causally related to an employment injury or to factors of his employment. As part of this burden, she must submit a rationalized medical opinion, based upon a complete and accurate factual and medical background, showing a causal relationship between the employee's death and an employment injury or factors of his federal employment. Causal relationship is a medical issue and can be established only by medical evidence.<sup>5</sup>

The medical evidence required to establish causal relationship is rationalized medical evidence. Rationalized medical evidence is medical evidence which includes a physician's rationalized medical opinion on the issue of whether there is a causal relationship between an employee's diagnosed conditions and the implicated employment factors. The opinion of the physician must be based on a complete factual and medical background of the employee, must be one of reasonable medical certainty and must be supported by medical rationale explaining the nature of the relationship between the employee's death and the accepted conditions or employment factors identified by the employee.<sup>6</sup>

### **ANALYSIS**

In the prior appeal, the Board remanded the case for OWCP to refer the matter for a second opinion regarding whether the osteomyelitis diagnosed by Dr. Sanford was due the employee's accepted surgeries. This recommendation was based on the opinion of an OWCP medical adviser, who suggested that an internist and expert in infectious diseases clarify this matter.

OWCP referred the employee's file to Dr. Hwang, Board-certified in infectious diseases, for a second opinion. In a November 17, 2010 report, Dr. Hwang reviewed the employee's history of injury and treatment. Regarding whether the osteomyelitis was due to the employee's accepted injuries, he found that it was not due to the injuries but rather the "[employee's] history of IV drug abuse." Dr. Hwang noted that vertebral osteomyelitis after spinal surgery usually occurred at the site of the surgery which, in the employee's case, was the cervical area and not the lumbar area. He explained that the "fact that the lumbar spine was the body area affected suggests a noncontiguous, hematogenous (seeding) route of infection." Dr. Hwang opined that

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<sup>4</sup> *Sharon Yonak (Nicholas Yonak)*, 49 ECAB 250 (1997).

<sup>5</sup> *Mary J. Briggs*, 37 ECAB 578 (1986); *Umberto Guzman*, 25 ECAB 362 (1974).

<sup>6</sup> *Donna L. Mims*, 53 ECAB 730 (2002).

the use of IV drugs served to cause bacteremia, which could then seed the lumbar spine with infecting bacteria. He explained that diagnostic testing such as the MRI scan and CT scan showed no evidence that the cervical spine was ever infected. Dr. Hwang explained that autopsy findings supported that IV drug abuse caused bacteremia and thus seeded the lumbar spine with bacteria, noting an “unequivocal pathologic finding on autopsy of the multiple granulomas in the lungs that contained birefringent crystals.” He opined that this “finding is pathognomonic of injection into the patient’s veins of crushed materials (likely medicine).” Dr. Hwang asserted that there was a “strong clinical suggestion that the injection of drug abuse was the cause of the lumbar osteomyelitis and that this was not related to the conditions accepted on this claim.” The Board finds that OWCP properly relied on his opinion in finding that the employee’s osteomyelitis was not due to the employee’s accepted surgery and, thus, his death was not caused or contributed to by his employment. The Board finds that Dr. Hwang’s opinion represents the weight of the evidence and OWCP properly denied the survivor’s claim.

The Board notes that the employee’s treating physician, Dr. Sanford, saw the employee on November 19, 2007 and explained that after the authorized anterior cervical discectomy and fusion, the employee developed “a terrible infection in his spine, an osteomyelitis” and developed a transverse myelitis which necessitated Dr. Sanford operating on him. However, Dr. Sanford did not explain or offer any specific opinion as to whether the osteomyelitis was due to the employee’s accepted surgeries. He also offered no subsequent opinion on whether the employee’s death was caused or contributed to by the accepted condition or surgery. Medical evidence which does not offer any opinion regarding the cause of an employee’s condition is of limited probative value on the issue of causal relationship.<sup>7</sup>

Additionally, in a report dated October 7, 2008, the coroner, Dr. Trenkle, a Board-certified pathologist and clinical pathologist, listed the cause of death as an accident due to “[c]omplications of chronic osteomyelitis of spine, years, due to blunt force injury of spine, years. Contributing cause: excessive use of pain medication with probable intravenous injection of crushed oral medications.” This report also does not specifically attribute the employee’s death to the accepted employment injury or surgery or otherwise explain how the cause of death was employment related.<sup>8</sup> There is no medical evidence specifically addressing how the employee’s accepted conditions or authorized surgery caused or contributed to his death.

On appeal, appellant reiterated that the employee’s death was related to complications from osteomyelitis and his pain medication. However, as noted above, the medical evidence does not support that the osteomyelitis or the employee’s death was due the employee’s accepted condition or surgery.<sup>9</sup>

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<sup>7</sup> *Michael E. Smith*, 50 ECAB 313 (1999).

<sup>8</sup> Dr. Patel’s March 29, 2004 report diagnosed staphylococcus bacteria secondary to his osteomyelitis. He advised that the employee was thought to have contracted this from his history of IV drug use.

<sup>9</sup> Appellant may submit evidence or argument with a written request for reconsideration within one year of this merit decision pursuant to 5 U.S.C. § 8128(a) and 20 C.F.R. §§10.605 through 10.607.

**CONCLUSION**

The Board finds that the employee's death on July 23, 2008 was not causally related to his accepted employment injury.

**ORDER**

**IT IS HEREBY ORDERED THAT** the December 1, 2010 decision of the Office of Workers' Compensation Programs is affirmed.

Issued: April 18, 2012  
Washington, DC

Richard J. Daschbach, Chief Judge  
Employees' Compensation Appeals Board

Colleen Duffy Kiko, Judge  
Employees' Compensation Appeals Board

James A. Haynes, Alternate Judge  
Employees' Compensation Appeals Board