# "The Power of the Dog" Movie—What About That Twist Ending? Millicent Eidson

"The Power of the Dog" won "Best Motion Picture" at the 2022 Golden Globe Awards. It is up for "Best Picture" by the Critics Choice Association. Its twelve Academy Award (Oscar) nominations led Netflix to the top of the studio heap.

The movie is well-regarded but the twist ending is provocative, leaving some viewers confused. This review will answer questions from the perspective of a scientist who has researched the movie punch line. SPOILER ALERT: THIS ARTICLE WILL PROVIDE ANALYSIS OF THE MOVIE ENDING AND PLOT EVENTS THROUGHOUT.

As a veterinary epidemiologist formerly with two state health departments and the Centers for Disease Control and Prevention (CDC), I continue as a public health Professor at the University at Albany and the University of Vermont. I'm also the author of an alphabetical mystery series on diseases from animals (zoonoses). The first novel, "Anthracis: A Microbial Mystery," was published by Maya Maguire Media in 2021. See <u>HOME (drmayamaguire.com)</u>

In "The Power of the Dog," young Peter deliberately uses anthrax to infect Phil, the domineering cowboy who drives Peter's mother Rose to drink after she marries Phil's brother George. The film has multiple themes, including animals like the dog of the title. This blog focuses on the surprise anthrax ending, related to cattle highlighted in the movie's first shot.

My novel "Anthracis" is named after the bacteria causing Phil's death, Bacillus anthracis. Anthrax is the first public health threat that my heroine, Dr. Maya Maguire, faces down in Arizona while juggling personal dilemmas and new relationships.

With my anthrax research, how do I interpret the pivotal function of anthrax in the movie? This is based on the creators' choices, not their source material in the 1967 novel by Thomas Savage.

As of February, 2022, "The Power of the Dog" has a score of 93% with Rotten Tomatoes. As a mystery author and animal disease expert, I award the film a grade of B on its use of anthrax in a key criminal act.

I admire the subtle weaving of clues about anthrax as a bioweapon. The film is convincing to me that Peter could successfully accomplish the murder of his family's antagonist in this way. However, there are a few issues that stretch scientific accuracy.

## Was Phil's source of exposure plausible? Grade A

Throughout history, animal hides have been a source of exposure to anthrax spores. In the U.S., people making or using animal hide drums have become infected. Areas like Texas with high cattle numbers experience animal cases yearly as the soil becomes contaminated, including spillover to other species like deer.

Anthrax bacteria are protected from environmental degradation by the hardy spores, which can come to the soil surface and increase exposures with storms or a warm, dusty climate.

# Was anthrax a threat in the American West during the movie time period? Grade A

The microbe was known by 1925. The United Kingdom established regulations to reduce risk, including banning of horse-hair shaving bushes from Japan. In a 1923 New York City series of thirty-seven cases, anthrax appeared to be an occupational risk for longshoremen and laborers.

Three human cases from Montana were reported in August, 1920, and anthrax continues to be a threat in modern-day Montana, with infected herds of domestic cattle and bison.

The film establishes anthrax as a risk within the first four minutes when Phil warns about keeping the herd away from a dead cow. He tells cowboys that it's anthrax and not to touch it.

#### What were Phil's risk factors for infection? Grade A

Phil processes cattle hides barehanded. When he castrates a steer, a cowboy asks why he doesn't wear gloves. Phil says they're not needed and jokes when he nicks a thumb. Closer to the time of infection, Phil bleeds from a deep cut on his right hand after tossing logs to drive out a rabbit.

Phil has hygiene problems. He refuses George's offer of the bathtub and is advised to skip a visit with their parents and the Governor if he won't wash up. His occasional baths in the creek start by smearing his body with mud.

In 1914, a Nevada veterinarian developed anthrax signs sixteen days after opening up without gloves the carcass of a cow during an increase in cattle mortality. Because that period seemed too long for infection, the physician linked hygiene to risk. For the death, he blamed anthrax spores hiding in dirt wedged under the veterinarian's fingernails like a ticking time bomb.

## How did Phil get infected? Grade A

During an ominous evening scene, Peter gives Phil hide strips he removed from a dead cow. The camera focuses on Phil massaging them in a liquid bath, then he caresses the rope after plaiting it. The wound on his right hand is clearly visible.

Swishing his hands in a liquid, even if saturated with spores, could wash them away from his wound. The weaving of the rope may be a more likely, or compounding, source of exposure. However, spores can remain in liquids and contaminate the environment. In 1920, a Massachusetts housewife was reported with anthrax after digging dandelions in an area contaminated by the effluent of hide processing vats.

# Were Phil's clinical signs correct? Grade B

When Phil doesn't show up for breakfast, George finds him woozy in bed with a bloody, blackened hand. A sweaty Phil knocks away George's help as he stumbles downstairs before George drives him to the doctor. The next scene shows Phil in his coffin, hand bandaged.

Anthrax skin lesions are dramatic. Phil's dark bloody wound may be compatible. A central black eschar of dead skin is typically surrounded by a swollen reddened area with no pain, pus, or tenderness. Fever and disorientation occurs as the bacteria spread throughout the bloodstream.

#### Was the timeline of Phil's infection authentic? Grade C

The film implies that Phil is late for the breakfast after the night braiding the rope. Developing the hand lesion and systemic signs after that exposure is too quick. Missing the breakfast several days later is more realistic. Also, someone would notice the unusual appearance of the wound and suggest medical care, unless he covered it up entirely with a bandage.

Perhaps Phil hid the wound until he experienced fever, nausea, and headache, bandage removed from the now swollen and painful hand. A review of cases from that era found that septicemia (blood infection) typically occurred forty-eight to ninety-six hours later.

#### Why didn't Phil survive his infection? Grade C

Anthrax treatments were available and the doctor sent out laboratory tests. Was he waiting for those results before treatment? He notes Phil's last convulsions were terrible and he's thinking anthrax.

Convulsions can occur with many diseases and wouldn't trigger thoughts of anthrax. Treatments included surgical excision and cauterization. Around 1920, doctors began injections of antianthrax serum around the wound every four hours, then multiple intravenous injections. In a remote Montana location, the serum may not have been available. However, with the family's wealth and connections, the physician appeared knowledgeable and should have known about treatment options.

Finally, autopsies to find characteristic internal swellings and hemorrhages were done in that era, although perhaps not in Montana. With an open coffin, it did not appear one was done for Phil.

How did Peter know about anthrax, how to spread it, and how to avoid it? Grade C Phil tells Peter that anthrax has killed cattle on the ranch. The film lingers on Peter wearing gloves as he removes the dead cow's hide, brings the strips to Phil, and fondles the rope after Phil's death. Peter consults his deceased father's medical books when he dissects a rabbit and studies medical drawings of infected hands.

However, despite his medical self-study, Peter doesn't take other recommended precautions like wearing a rubber apron or a bandana over his face when he processes the dead cow. Did Peter take any steps to clean the barn where Phil made the rope?

In a frightening final scene, Peter's gloved hands slide the rope under his bed. Then he gazes out the window at George and Rose embracing, their nemesis finally vanquished. But the spores are inside the home! Did the filmmakers intend us to feel both heartened and alarmed? That's the type of ending I give the readers of my novels.

*In conclusion*, scientists are critical of creative works that don't get the science quite right. For authentic stories that appeal to multiple types of readers, authors must rely on personal experience, insight, consultations, and careful research. Despite the shock and skepticism of some viewers, "The Power of the Dog" is credible in its use of anthrax as a premeditated murder weapon.

Using anthrax to deliberately kill has precedents. Japan and South Africa laced chocolate with anthrax to poison people. In 2001, a bioterrorist killed Americans through anthrax letters. And (ANOTHER SPOILER ALERT), a damaged person plots multiple ingenious ways to use anthrax as a weapon in my medical thriller "Anthracis: A Microbial Mystery," ANTHRACIS (drmayamaguire.com).

When crafting a thriller informed by science, authors make difficult decisions about which facts to include without bogging down the story. Based on this analysis, I believe the creators of "The Power of the Dog" did a good job at achieving the balance, so a grade of B.

I'd prefer a few tweaks to increase Peter's caution and to clarify that at least a couple of days pass between making the rope and Phil being found ill in bed. I'd like a sentence of dialogue from the doctor about how he tried to treat his patient. But in conveying the existential, invisible threat of these microscopic organisms, "The Power of the Dog" hits a home run.