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NOTABLE NOTES

Harvey, Irma, and Maria—The Dermatologic Risks of Hurricanes and Floods

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Hurricane Harvey and Irma may be behind us, but many of the effects of the storms continue to unfold. Harvey dumped a record of 51 inches of rainfall over Texas and Louisiana in 6 days. Irma remained a category 5 hurricane for 3 days, making it the strongest Atlantic-basin hurricane recorded outside the Gulf of Mexico. More recently, Hurricane Maria hit the Dominican Republic and Puerto Rico.

Dermatologic conditions resulting from major flooding have played an interesting role in history. During World War I, immersion foot, or trench foot, was seen in soldiers wearing wet socks and boots for lengthy time periods while in frigid, moist trenches. There is a similar concern in warmer climates, particularly in victims or responders to flooding disasters. Called tropical immersion foot, this condition can present as a subacute dermatitis with a burning pain, itching, and occasional intermittent paresthesias.¹

Worldwide, floods are the foremost cause of deaths from natural disasters. The Pakistan floods in 2010 affected approximately 20 million people and were responsible for around \$9.7 billion in damage as well as 1700 deaths.² Reports from the World Health Organization revealed that 19% of health consultations after the floods were related to skin diseases among displaced survivors, which was a higher rate than that of acute diarrhea and acute respiratory infections.¹

Vibrio infections can also inflict individuals during floods. More recently, during Hurricane Katrina, there were 24 cases of *Vibrio* infections with 6 deaths reported.¹ Although the concentration

of *Vibrio* was not measured from the most contaminated area near the Superdome, there were high levels of nonsewage pathogens, and the temperature and salinity of the floodwaters would have favored their growth.³

Given the increasing prevalence of hurricanes this past season, it is important to consider the dermatologic consequences that flooding may bring.

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