# Addressing Antifungal-Resistant *Aspergillus* spp.

## **Characterizing the Burden**

Agricultural azole fungicides drive resistance to medical azole antifungals

### Western Europe:

- 40% of antifungal-resistant Aspergillus infections in the UK linked to fungicides<sup>1</sup>
- Up to 19% of Aspergillus fumigatus cases in Europe are antifungal-resistant (in some studies)<sup>2</sup>

#### **United States:**

- Lack of surveillance
- Limited antifungal susceptibility testing
- Prevalence of resistant
  Aspergillus fumigatus unknown

**50%-100% mortality rate** for azole-resistant invasive aspergillosis<sup>3</sup>

# **Use Medical Azoles Appropriately**

#### Patient with invasive Aspergillus who is failing therapy



**Obtain AFST** 

No lab capacity/testing at your institution? Contact CDC's <u>Antibiotic Resistance Lab Network (AR LAB Network)</u>\*

#### Be ready to transition to a broader therapeutic approach

- Avoid azole monotherapy<sup>3</sup>
  - Consider LAmB or voriconazole plus an echinocandin<sup>3</sup>

\*https://www.cdc.gov/drugresistance/ar-lab-networks/domestic.html References

1.Shelton JMG et al. Citizen science reveals landscape-scale exposures to multiazole-resistant Aspergillus fumigatus bioaerosols. *Sci Adv.* 2023;9(29):eadh8839. doi:10.1126/sciadv.adh8839 2. Lestrade PP et al. Voriconazole resistance and mortality in invasive aspergillosis: A multicenter retrospective cohort study. *Clin Infect Dis.* 2019; 68:1463–1471; doi:10.1093/cid/ciy859. 3. Meis JF et al. PE. Clinical implications of globally emerging azole resistance in *Aspergillus fumigatus. Philos Trans R Soc Lond B Biol Sci.* 2016;371(1709):20150460. doi:10.1098/rstb.2015.0460

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