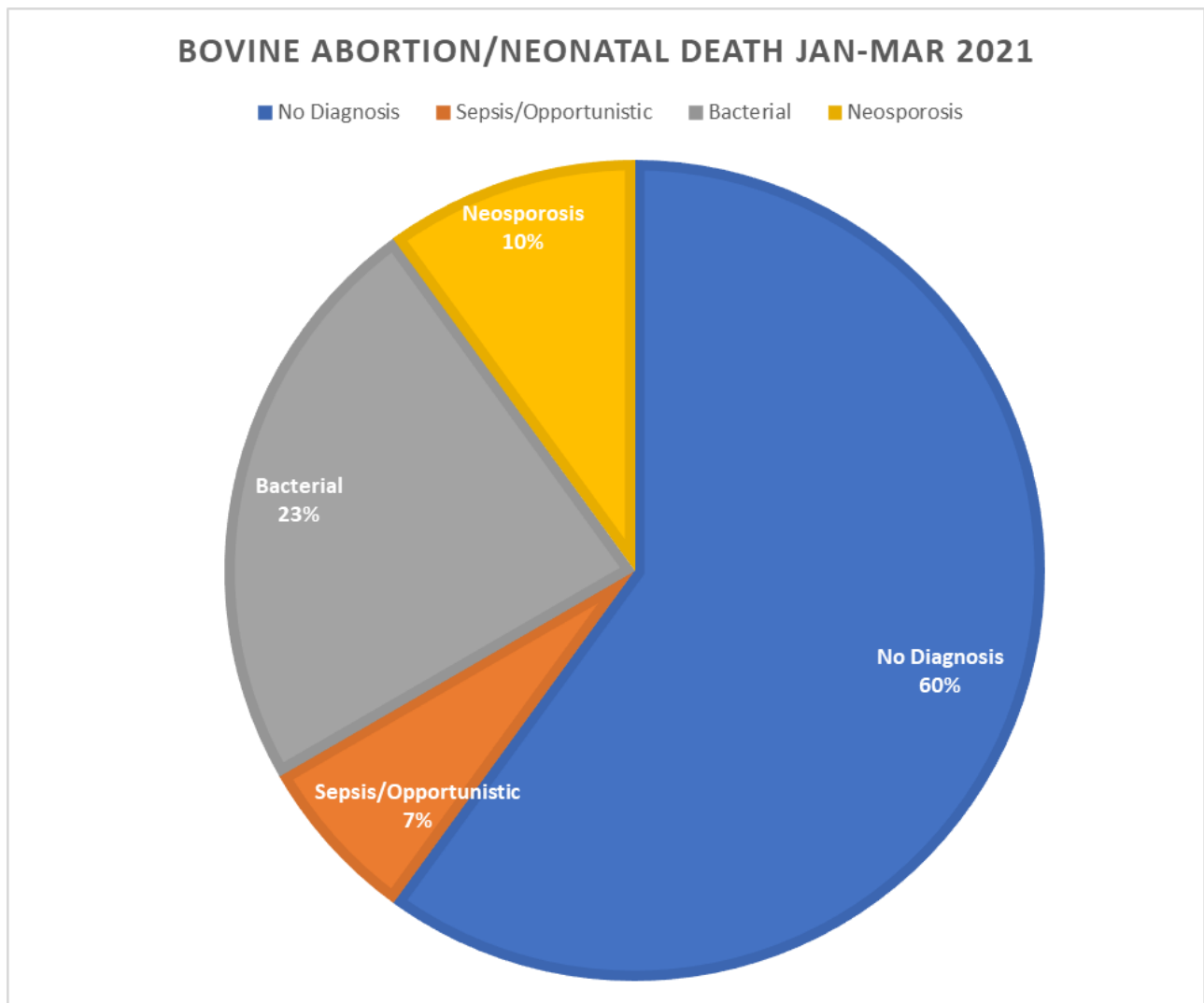


**Spring 2021 Bovine Abortion/Neonatal Death Summary**

Twenty-seven cases of bovine abortion, stillbirth or neonatal death (defined as within the first week of life) presented to the MU VMDL between January 1, 2021, and April 1, 2021. These 27 cases represent the examination of tissues or carcasses of thirty bovine neonates/fetuses.

In 60 percent of cases, no definitive cause of poor reproductive performance was identified. Further details follow the chart.



**No Diagnosis:**

For 18 of the bovine neonates/fetuses, no definitive cause of poor reproductive performance was identified. In two of these cases, *Neospora caninum* was identified via laboratory testing, however was of uncertain significance in the individual cases due to the absence of confirmatory test results or characteristic lesions. Nonetheless, identification of *Neospora caninum* by laboratory testing is likely significant on a herd level.

In one of these cases, an infectious etiology was strongly suspected due to observed lesions, however laboratory testing could not identify an etiology.

**Sepsis/Oppportunistic:**

Two neonatal deaths were included in this category for Q1 2021. Changes suggestive of septicemia were present in the lung, liver and heart of the first case. *Enterobacter cloacae* and *Streptococcus uberis* were isolated from the lung at necropsy. *Neospora caninum* was also identified by PCR, however IHC was negative in the examined sections.

In the second case of neonatal death, a bacterial meningitis was identified at necropsy. *Mannheimia haemolytica* was isolated on bacterial culture.

It is likely that these cases involved some degree of failure of passive transfer.

**Neosporosis:**

*Neospora caninum* was considered the probable cause of abortion in three animals during the reporting period in 2021. In one case (two fetuses), *N. caninum* was detected in fetal tissues by qPCR. In another case, *N. caninum* was detected in fetal tissues by qPCR and characteristic lesions were seen on microscopic examination of the brain, placenta, and liver.

**Bacterial:**

In-utero bacterial infections were considered responsible for abortion or stillbirth in seven fetuses. Organisms isolated included: *Trueperella pyogenes* (two cases), *E-coli* (four cases), and *Pseudomonas aeruginosa* (one case).

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