

EVALUATION OF LEPTOSPIROSIS CONTROL RESPONSE IN BOYOLALI REGENCY

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ABSTRACT

Background: Leptospirosis control in Boyolali Regency uses the concept of one health. In 2017 the highest case finding was 34 cases and 9 cases of death. The purpose of this study was to determine the response efforts that have been made by the Regional Government in Boyolali Regency and identify the response responses that have been made and the obstacles encountered.

Method: This was case control study using Mixed Methods (Sequent Explanatory Design). Data collection in 3 hospitals, 9 primary health office (PHO), the Health Office, the Agriculture Office, and the Animal Husbandry Office in Boyolali Regency. The instruments used were structured questionnaires and in-depth interview guidelines. Data analysis was performed descriptively and statistically using stataIC 13.

Results: Leptospirosis outbreak control management from the aspect of admission, there are 3 untrained health centers and do not yet have a leptospirosis control manual. Rapid diagnosis test (RDT) is available at the Department of Health, but no distribution is carried out due to limited availability, the method of control uses the concept of one health. The mapping of endemic areas is carried out by the Health Office and the primary health care conducting indirect observations. Catching mice was not examined. Findings of cases of leptospirosis in humans are communicated to the Animal Husbandry Department for follow-up checks on livestock. Private clinics as a place of first treatment have a higher risk (OR=5.33; 95%CI=0.37-75.77) for deaths from leptospirosis cases compared to hospitals and puskesmas. Duration of case care died in hospital between 1-3 days while live cases 46.67% care treatments 7 days. The duration of seeking treatment in 75% of cases was > 3 days from onset while 53.85% of cases was carried out <3 days. The process of diagnosing leptospirosis that is not right increases the risk of death (OR = 8). Complications of shock and respiratory disturbances are associated with deaths from leptospirosis cases (sequentially $p = 0.01$ OR = 28 95% CI = 1.38-1471.79; $p = 0.046$ OR = 13.75 95% CI = 0.94-707, 46).

Conclusion: One health-based leptospirosis control in Boyolali has succeeded in reducing mortality. Shock compilation and shortness of breath are the highest risk factors for death. Increasing the quality of human resources regularly and cooperation between various sectors such as community leaders, religious leaders, Department of Animal Husbandry, Department of Agriculture and other related agencies.

Keyword: Leptospirosis, One Health, Leptospirosis Control

EVALUASI MANAJEMEN PENGENDALIAN LEPTOSPIROSIS BERBASIS *ONE HEALTH* DI KABUPATEN BOYOLALI

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ABSTRAK

Latar belakang: Pengendalian leptospirosis di Kabupaten Boyolali menggunakan konsep *one health*. Tahun 2017 temuan kasus tertinggi 34 kasus dan 9 kasus kematian. Tujuan penelitian ini untuk mengetahui upaya-upaya respon yang telah dilakukan Pemerintah Daerah di Kabupaten Boyolali dan mengidentifikasi adekuasi respon yang telah dilakukan dan kendala yang dihadapi.

Metode: Jenis penelitian ini adalah *case control study* dengan metode *Mixed Methods (Sequentql Explanatory Design)*. Pengumpulan data dilakukan di 3 rumah sakit, 9 puskesmas, Dinas Kesehatan, Dinas Pertanian, dan Dinas Peternakan di Kabupaten Boyolali. Instrumen yang digunakan kuesioner terstruktur dan pedoman wawancara mendalam. Analisis data dilakukan secara deskriptif dan statistik menggunakan *stataIC 13*.

Hasil: Manajemen pengendalian KLB leptospirosis dari aspek masuk terdapat 3 puskesmas belum terlatih dan belum memiliki buku pedoman pengendalian leptospirosis. *Rapid diagnosis test* (RDT) tersedia di Dinas Kesehatan namun tidak dilakukan distribusi karena keterbatasan ketersediaan, metode pengendalian menggunakan konsep *one health*. Pemetaan daerah endemis dilakukan oleh Dinas Kesehatan dan puskesmas melakukan pengamatan secara tidak langsung. Penangkapan tikus tidak dilakukan pemeriksaan. Temuan kasus leptospirosis pada manusia di komunkasikan ke Dinas Peternakan untuk tindaklanjut pemeriksaan pada hewan ternak. Klinik swasta sebagai tempat pengobatan pertama memiliki risiko lebih tinggi (OR=5,33; 95%CI=0,37-75,77) terhadap kematian kasus leptospirosis dibandingkan rumah sakit dan puskesmas. Durasi perawatan kasus meninggal di rumah sakit antara 1-3 hari sedangkan kasus hidup 46,67% perawatan ≥ 7 hari. Durasi pencarian pengobatan pada kasus meninggal 75% dilakukan > 3 hari dari *onset* sedangkan kasus hidup 53,85% dilakukan < 3 hari. Proses diagnosis leptospirosis yang tidak tepat berisiko meningkatkan kematian (OR=8; 95%CI=0,66-116,13). Komplikasi syok dan gangguan pernafasan berhubungan dengan kematian kasus leptospirosis (berurutan $p= 0,01$ OR=28 95%CI=1,38-1471,79; $p = 0,046$ OR=13,75 95%CI=0,94-707,46).

Kesimpulan: Pengendalian leptospirosis berbasis *one health* di Kabupaten Boyolali berhasil menurunkan angka kematian. Komplikasi syok dan gangguan nafas menjadi faktor risiko tertinggi kematian leptospirosis. Meningkatkan kualitas sumber daya manusia secara berkala dan kerjasama antara berbagai sektor seperti tokoh masyarakat, tokoh agama, Dinas Peternakan, Dinas pertanian dan instansi terkait lainnya sebagai upaya pengendalian..

Kata kunci: Leptospirosis, One Health, Pengendalian leptospirosis