

DAFTAR PUSTAKA

- Anonim. 2018. Morfologi dari *Trypanosoma*. Diakses di <http://www.fao.org/docrep/006/x0413e/X0413E02.htm> pada tanggal 1 Agustus 2018.
- Al Mohammed, H.I. 2008. Comparative *in vivo* activities of *diminazene*, *suramine*, *quinapyramine* and *homidium bromide* on *Trypanosoma evansi* infection in mice. *Sci. J. King Faisal Univ.* 9: 139-147.
- Aprilyanto, V. dan Sembiring, L. 2016. *Filogenetika Molekuler: Teori dan Aplikasi*. Innosain. Yogyakarta. Pp: 20-25.
- Balakrishnan L, Venter H, Shilling RA, van Veen, Hendrik W. 2004. Reversible transport by the ATP-binding cassette multidrug export pump LmrA: ATP synthesis at the expense of downhill ethidium uptake. *The Journal of biological chemistry*, 279:11273-80.
- Barril, P., and Nates, S. 2012. *Introduction to Agarose and Polyacrylamide Gel Electrophoresis Matrices with Respect to Their Detection Sensitivities*. Universidad Nacional de Córdoba, Córdoba, Argentina.
- Barrett, M. P. 2013. Metabolomics guides rational development of a simplified cell culture medium for drug screening against *Trypanosoma brucei*. *Antimicrobial Agents and Chemotherapy*, 57:2768–2779.
- Boibessot, I., Turner, C. M., Watson, D. G., Goldie, E., Connel, G., McIntosh, A., Grant, M. H. and Skellern, G. G. 2002. Metabolism and distribution of phenanthridine trypanocides in *Trypanosoma brucei*. *Acta Tropica* 84: 219–228.
- Borst, P. And Ouellette, M. 1995. New mechanisms of drug resistance in parasitic protozoa. *Annu Rev Microbiol.* 49:427-60.
- Breier, A., Gibalova, L., Seres, M., Barancik, M., and Sulova, Z. 2013. New insight into p-glycoprotein as a drug target. *Anticancer Agents Med. Chem.* 13, 159–170.
- Budiarto, B.R. 2015. Polymerase Chain Reacton (PCR) : Perkembangan dan Perannya Dalam Diagnostik Kesehatan. *BioTrends*, 6(5).
- CLSI (formerly NCCLS). 2000. Laboratory diagnosis of blood-borne parasitic disease : approved guideline. CLSI document M15-A, Wayne, PA : CLSI.
- Chowdhury AR, Bakshi R, Wang J, Yildirim G, Liu B, Pappas-Brown V, Tolun G, Griffith JD, Shapiro TA, Jensen RE, Englund PT. 2010. The killing of African Trypanosomes by ethidium bromide. *PLoS Pathog.* 6:e1001226

- Dávila, A. M. R., Aguilar, R. and Silva, M. S. 2000. Animal Trypanosomiasis in South America Current Status , Partnership , and', *Annals New York academy of sciences*, (916), pp. 199–212.
- De konig, H.P. 2001. Uptake of Pentamidine in *Trypanosoma brucei brucei* is mediated by three distinct transporter: implications for cross-resistance with arsenicals. *Mol.Pharmacol.* 59, 586-592.
- Delespaux, V., Geerts, S., Brandt, j., Elyn, R., Eisler, M.C. 2002. Monitoring the correct use of isometamidium by farmers and veterinary assistants in Eastern Province of Zambia using the isometamidium-ELISA. *Vet-Parasitol.* 110:117-122.
- Delespaux, V., Geysen, D., Majiwa, P.A. and Geerts, S. 2005. Identification of a genetic marker for isometamidium chloride resistance in *Trypanosoma congolense*. *International Journal for Parasitology*, 35:235–243.
- De-Menezes VT, Queiroz AO, Gomes MAM, Marques MAP, Jansen AM. 2004. *Trypanosoma evansi* in inbred and Swiss-Webster mice: Distinct aspects of pathogenesis. *Parasitol Res.* 94:193-200.
- Desquesnes, M. and Davila, A. M. 2002. Applications of PCR-based tools for detection and identification of animal trypanosomes: a review and perspectives. *Veterinary Parasitology* 109: 213–23.
- Desquesnes, M. 2004. Livestock trypanosomoses and their vectors in Latin America. 2004, CIRAD-EMVT publication, OIE, Paris, France, ISBN 92-9044-634-X. 174.
- Desquesnes, M., Bossard, G., Patrel, D., Herder, S., Patout, O., Lepetitcolin, E., Thevenon, S., Berthier, D., Pavlovic, D., Brugidou, R., Jacquiet, P., Schelcher, F., Faye, B., Touratier, L. and Cuny, G. 2008. First outbreak of *Trypanosoma evansi* in camels in metropolitan France. *Veterinary Record*, 162:750–752.
- Desquesnes, M., Dargantes, A., Lai, D., Lun, Z., Holzmuller, P., Jittapalpong, S. 2013^a. *Trypanosoma evansi* and Surra: a review and perspectives on transmission, epidemiology and control, impact and zoonotic aspects. *Biomed Res Int.* 1-20.
- Desquesnes, M., Holzmuller, P., Lai, D., Dargantes, A., Lun, Z., and Jittapalpong, S. 2013^b. *Trypanosoma evansi* and Surra: A Review and Perspectives on Origin, History, Distribution, Taxonomy, Morphology, Hosts, and Pathogenic Effects. *Bio Med Research International*, 1-22.
- Dewi, A. P. 2018. Deteksi *Trypanosoma evansi* pada Kerbau di Jawa Tengah menggunakan Metoda Konvensional dan LAMP. Tesis Pascasarjana Sains

Veteriner, Fakultas Kedokteran Hewan, Universitas Gadjah Mada; Yogyakarta.

DGLAH (Directorate General of Livestock and Animal Health). 2012. Guidelines for the control and eradication Trypanosomiasis disease (Surra). Jakarta, Indonesia. Directorate of Animal Health, Directorate General of Livestock and Animal Health.

Dia, M.L., and Desquesnes, M. 2004. Lestrypanosomoses: utilisation rationnelle des trypanocides. Fiche technique, Santé animale, CIRDES, BP454 Bobo-Dioulasso, Burkina Faso, 3:1–8.

Eisler, M.C., Brandt, J., Bauer, B., Clausen, P.H., Delespaux, V., Holmes, P.H., Ilemobade, A., Machila, N., Mbwambo, H., McDermott, J., Mehlitz, D., Murilla, G., Ndung'u, J.M., Peregrine, A.S., Sidibé, I., Sinyangwe, L., Geerts, S. 2001. Standardised tests in mice and cattle for the detection of drug resistance in tsetse-transmitted trypanosomes of African domestic cattle. *Vet Parasitol*, 97:171-183.

Ekawasti, F., Yuniarto, I. and Subekti, D.T. 2017. *Trypanosoma evansi* protein profile of different geographical areas origin in Indonesia from 2012-2014 by using sodium dodecil sulphate polyacrylamide gel electrophoresis. *Jurnal Veteriner*, 18(4): 526–534.

El-Awady, R., Ekram, S., Amna, H., Nehal, S., Alaa, D., Azza, E., and Ghada, E. 2017. Review : The role of Eukariot and Prokaryotic ABC Transporter Family in Failure of Chemotherapy. *Fointiers in Pharmacology*, 7:1-15.

El-Mentanawey, T.M., El-Beih, N.M., El-Aziz, M.M.A., Hassanane, M.S., and El-Aziz, T.H.A. 2009. Comparative Studies on Diagnosis of *Trypanosoma evansi* in Experimentally Infected Goats. *Global Veterinary* 3 (4): 348-353.

GILL, B.S. 1977. Trypanosomes and trypanosomiasis of Indian livestock. Indian Council of Agricultural Research, Edit. ICAR New Delhi, 1977, A booklet, 137.

Giordani, F., Morrison, L.J., Rowan, T.G., Koning, H.P.D., and Barrett, M.P. 2016. The animal trypanosomiasis and their chemotherapy: a review. *Parasitology*, 143(14):1862–1889.

Gutiérrez C, González-Martín M, Corbera JA, Junco MTT. 2013. Chemotherapeutic agents against pathogenic animal Trypanosomes. In: Méndez-Vilas A, editor. Microbial pathogens and strategies for combating them: science, technology and education. Madrid (Spain): Formatex Research Center. p. 1564-1573.

- Handoyo, D., dan Rudiretna, A. 2000. *PRINSIP UMUM DAN PELAKSANAAN POLYMERASE CHAIN REACTION (PCR) [General Principles and Implementation of Polymerase Chain Reaction]*. Unitas, 9 (1): 17-29.
- Herrera, H. M., Jansen, A. M., Fernandes, O., Freitas, T. P. T., Rademaker, V., and Norek, A. 2005. Domestic and wild mammals infection by *Trypanosoma evansi* in a pristine area of the Brazilian Pantanal region. *Parasitology Research*, 96(2), 121–126.
- Higgins, C. F. 2001. ABC transporters: physiology, structure and mechanism –An overview. *Res. Microbiol.* 152:205–210.
- Hoar, C.A. 1972. The *Trypanosoma* of mamals. A Zoological Monograph. Blackwell scientific publications, Oxford, U.K., 749.
- Hosseininejad, M., Shirani D., Nabian, S., Nassiri, S., Mazaheri, R. 2007. *Trypanosoma evansi* in three dogs en Iran. *Comp. Clin. Pathol*, 16:69-71.
- Igoli, J. O., Blackburn, G., Gray, A. I., Sutcliffe, O. B., Watson, D. G., Euerby, M. R., and Skellern, G. G. 2015. Chromatographic and spectroscopic analysis of the components present in the phenanthridinium trypanocidal agent isometamidium. *Analytical and Bioanalytical Chemistry*, 407:1171–1180.
- Jatau, I.D., Lawal, A.I., Agbede, R.I.S., and Abdurahman, E.M. 2010. Efficacies of diminazene diaceturate and isometamidium chloride in *Trypanosoma evansi* infected in rats. *SJVS* 8:1-8.
- Jennings, F. W., Witelaw, D.D., Urquhart, G. M. 1977. The relationship between duration of infection with *Trypanosome brucei* in mice and the efficacy of chemotherapy. *Parasitology* 75: 143-153.
- Jones, T. W., and Davila, A. M. 2001. *Trypanosoma vivax*—out of Africa. *Trends in Parasitology*, 17:99–101.
- Joshi, M. and Deshpande, J.D. 2010. Polymerase Chain Reaction : Methods, Principles and Application. *International Journal of Biomedical Research*, 1(5):81-97.
- Kaufmann J. 2001. *Parasitic infections of domestic animals-a diagnostic manual*. Berlin (GR): Birkhauser.
- Klokouzas, A., Shahi, S., Hladky, S. B., Barrand, M. A., and Van Veen, H. W. 2003. ABC transporters and drug resistance in parasitic protozoa. *International Journal of Antimicrobial Agents*, 22(3), 301–317.

- Lazuardi, M. 2005. Pelacakan dosis tunggal tripanosidal diminazen aseturat pada mencit yang diinfeksi dengan trypanosoma. *Majalah Farmasi Indonesia*, 16(4): 222 – 226, 200.
- Leach, T. M., and Roberts, C. J. 1981. Present status of chemotherapy and chemoprophylaxis of animal trypanosomiasis in the Eastern hemisphere. *Pharmacology & Therapeutics*, 13:91–147.
- Lee, P.Y., Costumbrado, J., Hsu, C.Y., and Kim, Y.H. 2012. Agarose Gel Electrophoresis for the Separation of the DNA Fragments. *Journal of Agricultural Sciences*.
- Levine, N.D. 1990. *Buku Pelajaran Parasitologi Veteriner*. Universitas Gadjah Mada Press; Yogyakarta.
- Losos, G.J. 1980. Diseases caused by *Trypanosoma evansi*, a review. *Veterinary Research Communications*, 4 (3):165–181.
- Luckins, A.G. 1988. *Trypanosoma evansi* in Asia. *Parasitology Today* 4, 137–142.
- Lun, Z.R., Fang, Y., Wang, C.J., and Brun, R. 1993. Trypanosomiasis of domestic animals in China. *Parasitology Today*, 9:41–45.
- Lun, Z.R., Lai, D.H., Li, F.J., Lukes, J. and Ayala, F.J. 2010. *Trypanosoma brucei*: two steps to spread out from Africa. *Trends in Parasitology*, 26:424–427.
- Nair, A.B. and Jacob, S. 2016. A Simple practice guide for dose conversion between animals and human. A review. *Jou of Basic and Clinical Pharmacy*, 7:27-31.
- Nurcahyo, R. W. 2013. Occurance Trypanosomiasis in Indonesia. Presented paper in Workshop on Biting flies and Trypanosome. Veterinary Research Institute (VRI), Ipoh, Malaysia, 16-20 November 2013.
- Nurcahyo, R. W. 2014. *Trypanosomiasis* pada ternak di Indonesia. Makalah pada acara diskusi panel Surra. Badan Penelitian dan Pengembangan Pertanian. Kementerian RI, Jakarta. OIE.
- Nurcahyo, R. W. 2017. *Penyakit Surra Pada Hewan dan Ternak*. I. J. Prastowo, ed. Yogyakarta: Penerbit Samudra Biru.
- Nurcahyo, R.W., Priyowidodo, D., Prastowo, J. 2017. *Trypanosoma evansi* detection and vector identification in Central Java and Yogyakarta, Indonesia. In: Isnansetyo A., Nuringtyas T. (eds) *Proceeding of the 1st International Conference on Tropical Agriculture*. Springer, Cham.

- Macaraeg, B., Lazaro, J.V., Abes, N.S., and Mingala, C.N. 2013. In vivo assessment of the effect of trypanocidal drugs against *Trypanosoma evansi* isolates from Philippine water buffalos (*Bubalus-bubalis*). *Veterinarski Arhiv* 83: 381-392.
- Manuel, M.F. 1998. Sporadic outbreaks of surra in Philippines and its economic impact. *Journal of Protzology Research*, 8:131-138.
- Martindah. E., dan Husein, A. 2007. Trypanosomiasis pada ternak kerbau. *Prosiding Lokakarya Nasional Usaha Ternak Kerbau Mendukung Program Kecukupan Daging Sapi*. 103 – 109.
- Matovu, E., Stewart, M. L., Geiser, F., Brun, R., Maser, P., Wallace, L. J., Burchmore, R. J., Enyaru, J. C., Barrett, M. P., Kaminsky, R., Seebeck, T. and de Koning, H. P. 2003. Mechanisms of arsenical and diamidine uptake and resistance in *Trypanosoma brucei*. *Eukaryotic Cell* 2, 1003–1008.
- Maser, P., and Kaminsky, R. 1998. Identification of Three ABC Transporter Genes in *Trypanosoma brucei* spp. *Parasitologi Res*, 84:106-111.
- Mekonnen, G., Elmi, F.M., Weldu, K., Awol, N., Hagos, Y., Nick, V.R., Philippe, B., and Hadush, B. 2018. Isometamidium Chloride and homidium chloride fail to cure mice infected with Ethiopian *Trypanosoma evansi* type A and B. *PLOS Neglected Tropical Diseases*, 12(9).
- Melaku A, and Birrasa B . 2013. Drugs and drug resistance in African animal Trypanosomosis: A review. *Eur. J. Appl. Sci*. 5:84-91.
- Murrina. 2015. *Surra*. The Center for Food Security and Public Health: IOWA STATE UNIVERSITY.
- Moreno, S.A., and Mayerly, N. 2015. *Trypanosoma evansi* is alike to *Trypanosoma brucei brucei* in the subcellular localisation of glycolytic enzymes. *Mem Inst Oswaldo Cruz, Rio de Janeiro*, 110 (4): 468-475.
- [OIE] Office International des Epizooties. 2012. *Trypanosoma evansi Infection (Surra)*. OIE Terrestrial Manual 2012, Chapter 2.1.17. Paris (France): Office International des Epizooties. 1-15.
- Osorio, A. L., Madruga, C. R., Desquesnes, M., Soares, C. O., Ribeiro, L. R. and Costa, S. C. 2008. *Trypanosoma (Duttonella) vivax*: its biology, epidemiology, pathogenesis, and introduction in the New World—a review. *Memórias do Instituto Oswaldo Cruz*, 103:1–13.
- Partoutomo, S., Husein, A., Muharsini, S., dan Damayanti, R. 1996. Rangkuman Hasil Penelitian Surra di Balai Penelitian Veteriner. *Prosiding Seminar Nasional Peternakan dan Veteriner*. Cisarua, Bogor, 7-8 November 1995, 145 – 156.

- Partoutomo, S., Luckins, A. G., Husein, A., Thrusfield, M. V., Rae, P., Muharsini, S., and Davison, H. C. 2002. The occurrence of *Trypanosoma evansi* in buffaloes in Indonesia, estimated using various diagnostic tests. *Epidemiology and Infection*, 124(1), 163–172.
- Peregrine, A. S., Gray, M. A. and Moloo, S. K. (1997). Cross-resistance associated with development of resistance to isometamidium in a clone of *Trypanosoma congolense*. *Antimicrobial Agents and Chemotherapy* 41, 1604–1606
- Payne, R. C., I. P. Sukanto, D. Djauhari. 1991. *Trypanosoma evansi* infection in cattle, buffaloes and horses in Indonesia. *Veterinary Parasitology*, 38 (2-3):109–119.
- Payne, R.C., I.P. Sukanto, and T.W. Jones. 1992. *Trypanosoma evansi* infection as a constraint to livestock productivity in Indonesia,” in Premier S´eminaire International sur les Trypanosomoses Animales Non Transmises par les Glossines, p. 164, Annecy, France.
- Prayoga, W., dan Wardani, A.K. 2015. Polymerase Chain Reaction Untuk Deteksi *Salmonella* sp. : Kajian Pustaka. *Jurnal Pangan dan Agroindustri*, 3 (2), :483-488.
- Pholpark, S., M. Pholpark, C., Polsar, A., Charoenchai, Y. Paengpassa, and Kashiwazaki, Y. 1999. Influence of *Trypanosoma evansi* infection on milk yield of dairy cattle in Northeast Thailand. *Preventive Veterinary Medicine*, 42(1):39–44.
- Raina, A.K., Rakhesh, Kumar, V.S., Rajora, Sridhar, and Sing, R.P. 1985. Oral Transmission of *Trypanosoma evansi* Infection in Dogs and Mice. *Vet. Parasitol.*, 18:67-69.
- Reid, S.A. and Copeman, D.B. 2000. Surveys in Papua New Guinea to detect the presence of *Trypanosoma evansi* infection. *Australian Veterinary Journal*, 78(12):843–845.
- Reid, S.A. 2002. *Trypanosoma evansi* control and containment in Australasia. *Trends in Parasitology*, 18 (5):219–224.
- Saito, N. 2013. *Introduction to Evolutionary Genomic*. 1st edition. Springer-Verlag London.
- Sambrook, J., and Russel, D.W. 2001. *Molecular Cloning: a Laboratory Manual*, 3rd edition. Cold Spring Harbor, NY: Cold Spring Harbor Laboratory, English.

- Sauvage, V., Dominique, A., Sandie, E.B., and Isabelle Villena. 2009. The Role of ATP Binding Cassette (ABC) proteins in Protozoa Parasites. *Molekular & Biology Parsitology*, 167:81-94.
- Sawitri, D.H. 2016. Studi Virulensi *Trypanosoma evansi* isolat Indonesia dengan penentuan marka molekuler DNA mikrosatelit dan Analisis Profil sitokin pada mencit (*Mus musculus*). Disertasi, Fakultas Kedokteran Universitas Indonesia.
- Shahi SK, Krauth-Siegel RL, and Clayton CE. 2002. Overexpression of the putative thiol conjugate transporter TbMRPA causes melarso- profl resistance in *Trypanosoma brucei*. *Mol Microbiol* 43(5):1129.
- Silva, R., Vilas-Boas, V., Carmo, H., Dinis-Oliveira, R. J., Carvalho, F., de Lourdes Bastos, M., *et al.* 2015. Modulation of P-glycoprotein efflux pump: induction and activation as a therapeutic strategy. *Pharmacol. Ther.* 149, 1–123.
- Sinyangwe, L., Delespaux, V., Brandt, J., Geerts, S., Mubanga, J., Machila, N., Holmes, P.H. and Eisler, M.C. 2004. Triapnocidal drugs resistance in eastren province of Zambia. *Vet, Parasitol.* 119, 125-135.
- Subekti, D.T., Sawitri D.H., Suhardono, Wardhana, A.H. 2013. Pola Parasitemia dan Kematian Mencit yang diinfeksi *Trypanosoma evansi* isolat Indonesia. *J Ilmu Ternak dan Vet*, 18(4):270-91.
- Subekti, D.T. 2014. Perkembangan, struktur, mekanisme kerja dan efikasi trypanosidal untuk Surra. *Wartazoa*. 24:1-15.
- Subekti, D.T., Yuniarto, I., Sulinawati, Susiani, H., Santosa, B., Amaliah, F., Utomo, B.N., Dahlan, M., Suharyanto, Sukarya. 2015. Perbedaan Kepekaan Antar Isolat *Trypanosoma* Indonesia Terhadap Beberapa Trypanosidal. *JITV* in press.
- Sutherland, I.A., and Holmes, P.H. 1993. Alterations in drug transporter in resistant *Trypanosoma congolense*. *Acta Tropica*, 54, 271-278.
- Uilenberg, G. 1998. A Field Guide for the Diagnosis, Treatment, and Prevention of African Animal Trypanosomosis. Food and Agriculture Organisation of the United Nations (FAO), Rome, Italy.
- Urquhart, G.M, Armour, J., Ducan, J.L, Dunn, A. M., and Jennings, F.W. 1987. *Veterinary Parasitology*. Departement of Veterinary Parasitology, Faculty of Veterinary Medicine, University of Glasgow. 203-212.
- Van Hennekeller, K., Jones, R.E., Skerrat, L.F., Fitzpatrick, L.A., Reid S.A., and Bellis G.A. 2008. A comparison of trapping methods for Tabanidae

(Diptera) in North Queensland, Australia. *Medical and Veterinary Entomology*. 22:26-31.

Ventura, R.M., Takata, C.S.A., Silva, R.A.M.S., Nunes, V.L., Takeda, G.F. and Teixeira, M.M.G. 2000. Molecular and morphological studies of Brazilian *Trypanosoma evansi* stocks: the total absence of kDNA in trypanosomes from both laboratory stocks and naturally infected domestic and wild mammals. *Journal of Parasitology*, 86(6): 1289–1298.

Videira, M., Reis, R. L., and Brito, M. A. 2014. Deconstructing breast cancer cell biology and the mechanisms of multidrug resistance. *Biochim. Biophys. Acta* 1846, 312–325.

Wainwright, M. 2010. Dyes, Trypanosomiasis and DNA: a historical and critical review. *Biotech Histochem*. 85:341-354.

Wardhana, A.H, Iskandar, T., Subekti, D.T., Wardhani, S.W., Yuningsih. 2011. Skrining Herbal (artemisa aunna), ekor kucing (acalypha elkesiana) dan kipahit (Titonia diversifolia) untuk obat surra.

Wilkes, J. M., Peregrine, A. S. and Zilberstein, D. 1995. The accumulation and compartmentalization of isometamidium chloride in *Trypanosoma congolense*, monitored by its intrinsic fluorescence. *The Biochemical Journal* 312 (Pt 1): 319–327.

Witola, W.H., Inoue, N., Ohashi, K., and Onuma, M. 2004. RNA-interference silencing of the adenosine transporter-1 gene in *Trypanosoma evansi* confers resistance to diminazene aceturate. *Experimental parasitology*, 107(1–2): 47–57.

Yusuf, Z.K. 2010. Polimerase Chain Reaction (PCR). *Saintek*, 5(6).

Yowono, T. 2006. *Teori dan aplikasi PCR*. Yogyakarta: ANDI. 2-3,224.