

Supplemental Table 2: Progression of Orangutan Respiratory Disease Syndrome, treatment timeline, and surgical intervention dates in Case 2 from 2010 to 2022.

New Episode ^a	Date	Symptom Descriptions	Antibiotic treatment ^b	Surgery
1	05-Jul-10	Nasal discharge, accumulation of pus in air sac with consistency of cloudy liquid pus and strong odor (one month).	Cefradroxil 500mg (Bernofarm Pharmaceutical Company, Jawa Timur 61252, Indonesia) q12h for 12 days	Airsac marsupialization surgery, followed with three times repeated flushing of the airsac with 7-14 days interval.
Clear symptoms for ten months.				
		Thick nasal discharge in June 2011 (one month).		
Clear symptoms for twelve months.				
		Thick nasal discharge in July 2012 (one month), October 2012 (one month), December 2012 (2months), and March 2013 (one month).		
2	22-May-13	Coughing, nasal discharge and accumulation of pus in airsac, similar description to the first episode (three months).	Ciprofloxacin 500 mg (PT. Kimia Farma, Jakarta Pusat 10110, Indonesia) q12h for 12 days, continued with Levofloxacin 500 mg (PT. Kimia Farma, Jakarta Pusat 10110, Indonesia) q24h for 14 days, continued with Ofloxacin 400mg (PT. Novell Pharmaceutical Laboratories, Bogor 16962, Indonesia) q24h for 15 days.	Airsac marsupialization surgery. Twelve days later the marsupial hole was re-opened and flushed. Repeated flushing was done twice with 14 days interval.
		Thick nasal discharge and pus drainage from the airsac hole continued to be intermittently reported in October 2013 (two months).		
Clear symptoms for eight months.				
		Thick nasal discharge and pus drainage from the airsac hole continued to be intermittently reported in August 2014 (four months), February 2015 (one month), and June 2015 (three months).		
	12 Aug-15			Re-flushing procedure through the previously made marsupial hole of the airsac

RH: ORDS CASE SERIES

CLINICAL MANAGEMENT OF CHRONIC ORANGUTAN RESPIRATORY DISEASE SYNDROME IN THREE ADULT MALE BORNEAN ORANGUTANS (PONGO PYGMAEUS)

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Clear symptoms for six months.				
3	14-Mar-16	Pus constantly flew out from the marsupial hole, nasal discharge observed consistently until early June 2016 (two months).	Ciprofloxacin 500 mg (PT. Kimia Farma, Jakarta Pusat 10110, Indonesia) q12h for 7 days	Flushing procedure of the airsac through the marsupial hole.
Clear symptoms for two months.				
4	20-Aug-16	Coughing, mucopurulent nasal discharge, and accumulation of airsac pus with caseous consistency. Drainage of pus from airsac marsupial hole persistent, followed with heavy breathing (four months).	Cefadroxil 1000 mg (Bernofarm Pharmaceutical Company, Jawa Timur 61252, Indonesia) q12h for 14 days	Flushing procedure of the airsac through the marsupial hole.
	01-Nov-16	CT scan of head & thorax suggested left maxillary sinusitis, left mastoiditis, rhinitis, bilateral bronchial wall thickening, and right lobe pneumonia.	Azithromycin 400mg (PT. Kimia Farma, Jakarta Pusat 10110, Indonesia) 3times a week on alternating days for 8 weeks and Levofloxacin 500mg (PT. Kimia Farma, Jakarta Pusat 10110, Indonesia) q24h for 8 weeks.	Flushing procedure of the airsac through the marsupial hole.
Clear symptoms for 18 months.				
	14-Jul-17	No clinical symptom reported, evaluation CT scan suggested sinusitis resolved, mastoiditis improved, persistent bilateral bronchial wall thickening, and improved pneumonia.		
5	15-Jul-18	No clinical symptom reported, however evaluation CT scan bilateral lower lobes pneumonia and persistent airways thickening.	Azithromycin 400mg (PT. Kimia Farma, Jakarta Pusat 10110, Indonesia) 3/wk, long term ^d .	
Clear symptoms for 39 months.				
	12-Apr-19	Mild nasal discharge reported, evaluation CT scan suggested no signs of inflammation with persistence of minimal sinusitis and airway disease, as well as mild infiltrate in the right lower lobe and in the mastoid air cells.	Continuation of Azithromycin. Since August 2019, nebulized salbutamol 2.5mg (GlaxoSmithKline Australia Pty Ltd, Victoria 8003, Australia) q12h was added for long term. Since January 2020, nebulized hypertonic saline 4ml (3% PT. Otsuka Indonesia, Malang 65216, Indonesia, or 7% PARI Respiratory Equipment, Inc., Virginia 23112, USA) q12h was added for long term.	

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6 ^c	28-Nov-21	Thick nasal discharge was observed, along with pus drainage from airsac marsupial hole, general lethargy and inappetence (one month)	Continuation of Azithromycin, salbutamol, and hypertonic saline. Additional levofloxacin 500mg (PT. Kimia Farma, Jakarta Pusat 10110, Indonesia) q12h for 4 weeks.	
Clear symptoms for 13 months (up to December 2022).				

^aA new episode is defined as a new appearance of clinical signs that was not observed for at least two months prior to the episode, which persisted and progressed for more than three days, and thus warranted the administration of an antibiotic with or without surgical treatment to clear the air sac accumulation of pus.

^bIn addition to the antibiotic treatment, supportive care like anti-pyretic, anti-histamine, and painkillers were given to the animal during his exacerbation episodes as per the vets' discretion.

^cThe exacerbation that occurred in November of 2021 coincided with a temporary halt to azithromycin therapy due to a drug shortage during the Covid pandemic. Nebulization continued during this period.

^dStart of the chronic ORDS treatment.