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P2443 Incidence of neonatal sepsis from hospitals in South Asia and Africa: the Burden of Antibiotic Resistance in Neonates in Developing Societies (BARNARDS) - a group study

Rebecca Milton*[1,2], David Gillespie[2], Calie Dyer[1], Maria Carvalho[1], Kirsty Sands[1], Kathryn Thomson[1], Edward Portal[1], Jordan Mathias[1], Ana Ferreira[1], Maria Nieto [1], Thomas Hender [1], Khadijeh Taiyari[2], Nigel Kirby[2], Kerenza Hood[2], Kenneth Iregbu[3], Zahra Modibbo[4], Jean-Baptiste Mazarati[5], Grace Chan[6,7], Delayehu Bekele[8], Shaheen Mehtar[9], Rabaab Zahra[10], Haider Shirazi[10], Sulagna Basu[11], Ranjan Nandy[12], Samir Saha[13], William John Watkins[1], Barnards Group[1,2,12,7,6,10,9,13,5,3,4], Timothy R. Walsh[1]

[1] Institute of Infection & Immunity, School of Medicine, Cardiff University, United Kingdom, [2] Centre for Trials Research , Cardiff University, Cardiff, United Kingdom, [3] Department of Medical Microbiology and Parasitology, National Hospital, Abuja, Nigeria, [4] Ultra Care Hospital & Clinics Victoria Island, Lagos, Nigeria, [5] University Teaching Hospital Kigali, Kigali, Rwanda, [6] Harvard Medical School, Boston, United States, [7] St. Paul's Hospital ቅዱስ ጳውሎስ ሆስፒታል, Addis Ababa, Ethiopia, [8] St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia, [9] Unit for Infection Prevention and Control, Tygerberg Academic Hospital and Faculty of Health Sciences,, Stellenbosch University, South Africa, [10] Department of Microbiology Quaid-i-Azam University (QAU), Pakistan Institute of Medical Sciences, Islamabad, Pakistan, [11] ICMR-National Institute of Cholera and Enteric Diseases , Kolkata, India, [12] ICMR-NICED and, IPGMER-SSKM (The Institute of Post-Graduate Medical Education and Research and Seth Sukhlal Karnani Memorial Hospital) Hospital,, Kolkata, India, [13] Department of Diagnostic Division of Microbiology, Dhaka Shishu Hospital, Dhaka, Bangladesh

Background: A major cause of mortality in low-middle income countries is neonatal sepsis. Previous data has been predominantly sought from private laboratories and hospitals with little understanding of the burden of neonatal sepsis in the areas representative of general population. Many BARNARDS' countries do not have neonatal sepsis rates from livebirth cohorts, only from neonatal unit admissions, or causes of mortality.

Materials/methods: Mothers in labour admitted to hospitals in India, Bangladesh, Pakistan, Rwanda, South Africa, Nigeria and Ethiopia were prospectively recruited between 2015-2017. Infants were followed up to 60 days. Detailed questionnaires on socio-demographic data and pregnancy/birth history were taken from mothers on admission. Blood cultures were taken from infants presenting with signs of sepsis, analysed in-house using BD BACTEC™ for detection of sepsis. Statistical analysis was conducted using STATA SE14.

Results: BARNARDS enrolled 35,040 mothers and 30,556 infants. 5,414 infants were clinically diagnosed with sepsis, 133.4/1,000 livebirths and 1,386 with blood culture confirmed sepsis 31.7/1,000. Incidence of both sepsis definitions varied by site, with clinically diagnosed sepsis ranging from 25.2/1,000 (BK) to 327.6/1000 (PP), incidence of blood culture confirmed sepsis from 2.9/1,000 (BK) to 83.8/1000 (PP). The ratio of clinically diagnosed to blood culture confirmed sepsis incidence was 4.2 overall, ranging from 2.7 to 8.8.

Country	Site	Number analyse d	Clinica lly diagnos ed	1000/li vebirth s	Blood culture confirm ed	1000/li vebirth s
Bangl adesh	**BC**	563	126	223.8	38	67.5
	BK	1387	35	25.23	4	2.88
Ethio pia	**ES**	4187	480	114.64	181	43.23
India	**IN**	1126	44	39.08	8	7.12
Niger ia	**NK**	5582	531	95.13	99	17.74
	NN	1531	302	197.26	108	70.54
	NW	2224	102	45.86	37	16.64
Pakis tan	**PC**	415	98	236.14	31	74.7
	PP	7197	2358	327.64	603	83.78
Rwand a	**RU**	1173	299	254.9	49	41.77
	RK	2005	480	239.4	149	74.31
**South Africa	**ZAT**	3166	559	176.56	79	24.95

Conclusions: BK exhibited the lowest overall ratio between clinically diagnosed and culture confirmed incidences 25/1000 livebirths and 2.8/1000 respectively. Overall, the highest rates of blood culture confirmed sepsis were reported in PP 83.78/1000. The contrast between the Abuja sites (NN and NW) is an area for further investigation.