

Supplemental table 1. Data sources and definitions of covariates.

Variable	Source	Definition
Maternal age	Hospital information system	The age of the mother at the time of delivery (recorded as years).
Maternal BMI	Hospital information system	Maternal BMI was calculated as weight (recorded as kilograms) divided by the square of height (recorded as meters) before pregnancy.
Maternal history of allergic diseases	Face-to-face questionnaires	It was detailedly categorized into 2 conditions, maternal history of AR and other allergic diseases, such as allergic asthma, atopic dermatitis, or food allergies, and all of them were based on the criteria of the Immune Groups, The Society of Pediatrics, Chinese Medical Association.
Maternal smoking history	Face-to-face questionnaires	Mothers smoke during pregnancy and after childbirth
Maternal education level	Face-to-face questionnaires	Graduating from university or above are defined as receiving higher education.
Gender	Hospital information system	Recorded in HIS as male or female.
Birth weight	Hospital information system	The body weight of a baby at its birth (recorded as grams).
Gestational age	Hospital information system	A measure of the age of a pregnancy which is taken from the beginning of the woman's last menstrual period.
Parity	Hospital information system	The number of times that the mother has given birth to a fetus with a gestational age of

		24 weeks or more, regardless of whether the child was born alive or was stillborn.
Antibiotic use within 72h after birth in infants	Hospital information system	Whether the newborn has been treated with antibiotics within 72 hours after birth.
Feeding pattern	Face-to-face questionnaires	Feeding pattern include breastfeeding (only breastmilk was adopted within 6 months of birth), artificial feeding (no breastmilk was adopted within 6 months of birth) and mixed feeding (both breastfeeding and artificial feeding were adopted).
Keeping pets	Face-to-face questionnaires	Keeping pets (i.e. cats and dogs) at home

SUPPLEMENTAL TABLE 2 Characteristics of IAP between without GBS-IAP group and with GBS-IAP group

Characteristics	GBS-IAP	without GBS-IAP
	n = 387	n = 2623
Type of GBS-specific antibiotic,n (%)		77(2.9)
Ampicillin	71(18.3)	20 (26.0)
Cefazolin	29 (7.5)	9(11.7)
Penicillin	211(74.2)	48(62.3)
Hours from first antibiotic dose to delivery, median (IQR)	11.22 (7.42 – 16.54)	2.56(1.76 – 3.58)
Exposure to other antibiotic (not GBS-specific) before delivery, n (%)	41(10.6)	1634(62.2)
Clindamycin	4(9.8)	103(6.3)
Piperacillin tazobactam	31(75.6)	210(12.9)
Azithromycin or erythromycin	4(9.8)	22(1.3)
Ceftriaxone	2(4.9)	87(5.3)
Cefoxitin	0	1212(74.2)
Hours from first dose of other antibiotic to delivery, median (IQR)	3.48 (1.49 – 6.48)	0.91 (0.51 – 1.81)

SUPPLEMENTAL TABLE 3 Characteristics of IAP between without GBS-IAP group and with GBS-IAP group

Characteristics	GBS-IAP	without GBS-IAP
	n = 381	n = 381
Type of GBS-specific antibiotic,n (%)		15(3.9)
Ampicillin	76(20.0)	3(20.0)
Cefazolin	27 (7.1)	1(6.6)
Penicillin	278(72.9)	11(73.3)
Hours from first antibiotic dose to delivery, median (IQR)	11.42 (7.47 – 16.14)	2.67(1.87 – 3.88)
Exposure to other antibiotic (not GBS-specific) before delivery, n (%)	42(11.1)	240(63.0)
Clindamycin	5(11.9)	14(5.8)
Piperacillin tazobactam	29(69.0)	28(11.7)
Azithromycin or erythromycin	5(11.9)	4(1.7)
Ceftriaxone	2(4.8)	15(6.3)
Cefoxitin	1(2.4)	179(74.6)
Hours from first dose of other antibiotic to delivery, median (IQR)	3.50 (1.53 – 6.51)	0.95(0.57 – 1.89)