

# DEVELOPMENT OF A CONVERSION FACTOR BETWEEN DEFINED DAILY DOSES OF ADULTS AND NEONATES

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## BACKGROUND

Absence of a standardized method to measure antimicrobial consumption in the neonatal population

## OBJETIVE

Develop and calculate a conversion factor that relates the defined daily doses adults (DDD<sub>a</sub>) and neonates (DDD<sub>n</sub>)

## MATERIAL AND METHOD

- National, multicenter and retrospective study.
- Design and calculation of DDD<sub>n</sub> = usual antimicrobial dose x mean weight
  1. Usual dose of antimicrobials (oral and intravenous) → Delphi method
  2. Mean weight → neonates admitted in a year in 6 National centers (2<sup>o</sup>/3<sup>a</sup> level)
- Calculation of the conversion factor between DDD<sub>a</sub> to DDD<sub>n</sub>

## RESULT

ANTIMICROBIAL (Consensual dose)	VÍA	CF (DDD <sub>a</sub> / DDD <sub>n</sub> )	CF (DDD <sub>n</sub> / DDD <sub>a</sub> )
Ampicilin (30mg)	IV	22,33	0,04
Amoxicilin (30mg)	IV	37,22	0,03
Amoxicilin-Clavul.	IV	11,16	0,09
Amikacin (15mg)	IV	24,81	0,04
Anfoterin B Lipsoml.	IV	2,61	0,38
Azythromycin (10mg)	IV	18,61	0,05
Aztreonam (90mg)	IV	16,54	0,06
Cefazolin (50mg)	IV	22,33	0,04
Ceftazidim (100mg)	IV	14,89	0,07
Cefepime (100mg)	IV	14,89	0,07
Cefotaxime (100mg)	IV	14,89	0,07
Cyprofloxacin(15mg)	IV	19,85	0,05
Clindamicin (15mg)	IV	44,66	0,04
Erythromycin (50mg)	IV	7,44	0,13
Fluconazol (6mg)	IV	12,40	0,08
Gentamycin (4mg)	IV	22,33	0,04
Imipenem (50mg)	IV	14,89	0,07
Linezolid (30mg)	IV	14,89	0,07
Meropenem (40mg)	IV	27,91	0,04
Metronidazol (15mg)	IV	37,22	0,03
Micafungine (2mg)	IV	18,61	0,05
Penicilin GNa (45mg)	IV	29,77	0,03

Nº Neonates	Mean weight (Kg)	Average Gestational Age
4820	2,687	36,7 semanas

ANTIMICROBIAL (Consensual dose)	VÍA	FC (DDD <sub>a</sub> / DDD <sub>n</sub> )	FC (DDD <sub>n</sub> / DDD <sub>a</sub> )
Piperaciline-Tazobactam	IV	26,05	0,04
Teicoplanine (mg)	IV	24,81	0,04
Vancomycin (30mg)	IV	24,81	0,04
Amoxicilin (30mg)	VO	18,61	0,05
Amoxicilin-clavul.	VO	12,40	0,08
Azythromycin (10mg)	VO	11,16	0,09
Cefadroxile (30mg)	VO	24,81	0,04
Cefixime (8mg)	VO	18,61	0,05
Ciprofloxacin(20mg)	VO	18,61	0,05
Clindamycin (15mg)	VO	29,77	0,03
Cloxacilin (50mg)	VO	14,87	0,07
Erythromycin (50mg)	VO	7,44	0,13
Fluconazol (6mg)	VO	12,40	0,08
Fosfomicine (100mg)	VO	11,16	0,09
Itraconazol (3mg)	VO	24,81	0,04
Linezolid (30mg)	VO	14,89	0,07
Metronidazole (30mg)	VO	24,81	0,04
Vancomycin (40mg)	VO	18,61	0,05

DDD n= neonatal DDD, DDD a= adult DDD , CF= Conversion Factor

## CONCLUSIONS

- ✓ The analysis of the demographic characteristics allows to standardize DDD<sub>n</sub> and generate a CF with respect to DDD<sub>a</sub>
  - ✓ A new study to confirm the validity of the DDD<sub>n</sub> and CF is underway.

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