

Brought to you by:  
B-on Consortium of Portugal

ScienceDirect



Download PDF

Export

Search ScienceDirect



Advanced search

Article outline

Objectives  
Methods  
Results  
Conclusions



## Research in Social and Administrative Pharmacy

Volume 8, Issue 6, November–December 2012, Pages e52–e53



# Development and Validation of Pharmacists' and Physicians' Attitudes Instrument about Microbial Resistance and Antibiotic Use in Primary Care

F. Roque<sup>1, 2, 3</sup>, S. Soares<sup>1</sup>, L. Breitenfel<sup>4</sup>, A. Figueiras<sup>5, 6</sup>, M.T. Herdeiro<sup>1, 7, 8</sup><sup>1</sup> Center for Cell Biology, University of Aveiro (CBC/UA); Portugal<sup>2</sup> Research Unit for Inland Development, Polytechnic Institute of Guarda (UDI/IPG), Portugal<sup>3</sup> University of Beira Interior (UBI), Portugal<sup>4</sup> Health Sciences Research Centre, University of Beira Interior (CITS/UBI), Portugal<sup>5</sup> University of Santiago de Compostela, Santiago de Compostela, Galicia, Spain<sup>6</sup> Consortium for Biomedical Research in Epidemiology & Public Health (CIBER en Epidemiología y Salud Pública - CIBERESP), Spain<sup>7</sup> Center for Health Technology & Information Systems Research (CINTESIS/FMUP); Portugal<sup>8</sup> Health Technology Research Center (CITS/CESPU), Portugal

Available online 10 November 2012

[Show less](#)<http://dx.doi.org/10.1016/j.sapharm.2012.08.122>[Get rights and content](#)

ADVERTISEMENT



### Objectives

To evaluate reliability and reproducibility of two questionnaires on knowledge and attitudes of pharmacists and physicians about antibiotic use and microbial resistance.

### Methods

Two structured questionnaires, one for pharmacists and one for physicians, were constructed after review of published studies and after performed a qualitative study designed with pharmacists' focus group sessions. Our research was developed in an area of Statistically Territorial Unity Nomenclature (NUT) II of Portugal, defined by Health Northern Regional Administration (ARS-N). ARS-N was informed about the study and questionnaires were administered to each health professional twice, at an interval of 2 to 4 weeks. Attitudes were measured using a continuous visual analogical scale, with answers scored from 0 (total disagreement) to 20 (total agreement). Statistical analyses included the determination of intraclass coefficient (ICC) and Cronbach's alpha for each questionnaire.

### Results

A total of 43 pharmacists and 32 physicians participated in this survey. Each questionnaire evaluated 17 attitudes that were grouped in four dimensions of attitudes to antibiotic resistance: perception of the problem, attribution of responsibilities, confidence and factors associated to dispensing habits (in pharmacists questionnaire) or factors associated to prescription habits (in physicians questionnaire). Six questions, related to the first three categories mentioned are common for both questionnaires what permits to compare these attitudes between pharmacists and physicians. All evaluated attitudes demonstrated good ICC for each questionnaire and the reliability (Cronbach's alpha) was 0,624 for pharmacists' questionnaire and 0,711 for physicians' questionnaire.

### Conclusions

These questionnaires proved to be a good tool for collecting data, since it allows compare some attitudes between pharmacists and physicians, and to detect differences among each professional group. Data collected from this questionnaire are important to design interventions directed to pharmacists and physicians to improve antibiotic use, tailored taking into account attitudes, knowledge and dispense or prescription habits of these health professionals.

Copyright © 2012 Published by Elsevier Inc.

---

## ELSEVIER

[About ScienceDirect](#)   [Remote access](#)   [Shopping cart](#)   [Contact and support](#)  
[Terms and conditions](#)   [Privacy policy](#)

Cookies are used by this site. For more information, visit the [cookies page](#).

Copyright © 2016 Elsevier B.V. or its licensors or contributors. ScienceDirect ® is a registered trademark of Elsevier B.V.

 RELX Group™

### ▼ Recommended articles

#### [Achieving prudence in the prescribing of antimicrob...](#)

2007, Journal of Hospital Infection [more](#)

#### [The effect of an educational intervention to improve...](#)

2014, Atención Primaria [more](#)

#### [Antibiotic dispensing in Egyptian community pharm...](#)

2014, Research in Social and Administrative Pharmacy [more](#)

[View more articles »](#)

### ▶ Citing articles ( 0 )

### ▶ Related book content

