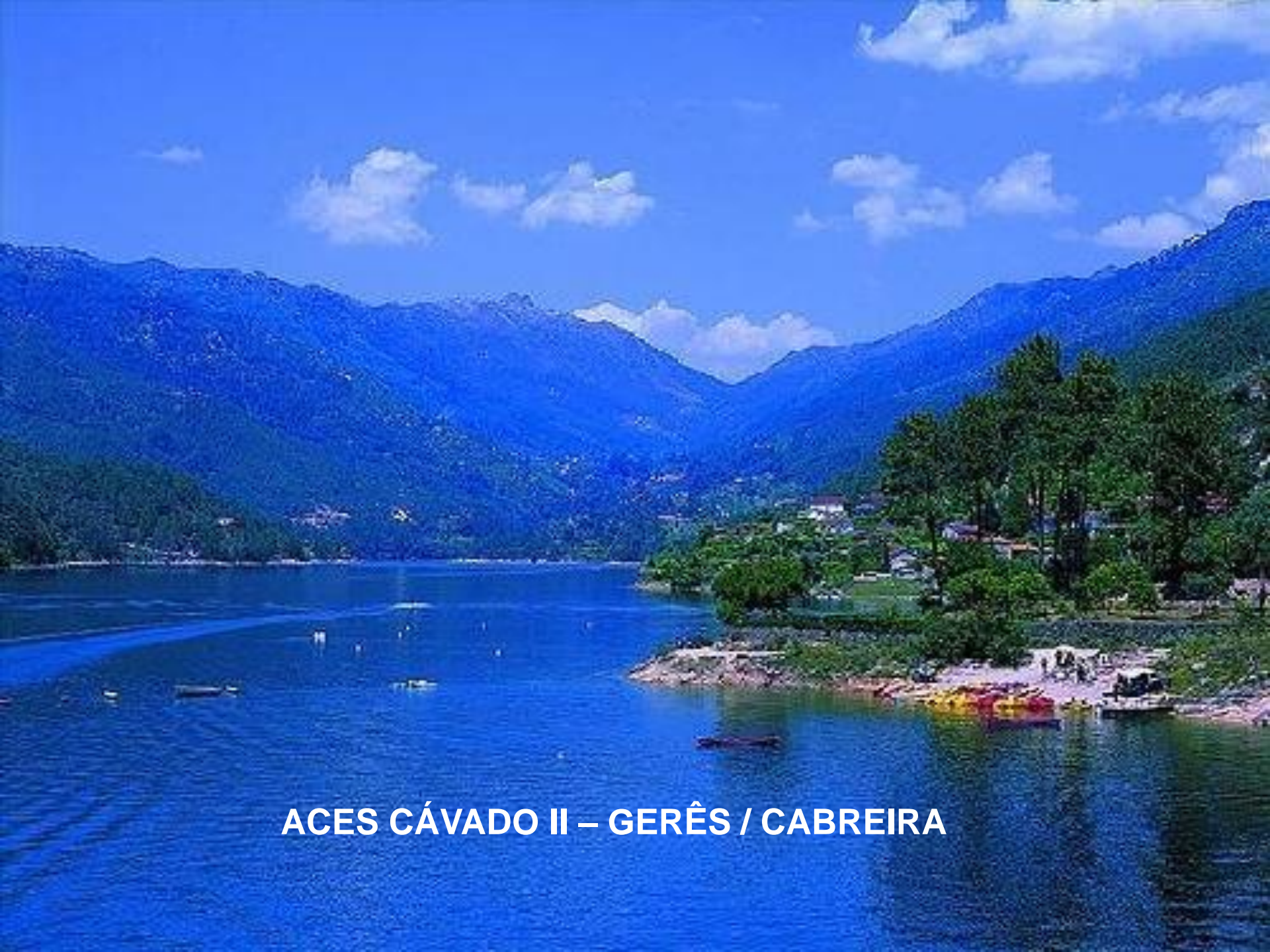


# PRESCRIÇÃO DE QUINOLONAS

**ACES CÁVADO II – GERÊS/CABREIRA**

**2015 - 03 - 13**

**Raul Varajão Borges**



**ACES CÁVADO II – GERÊS / CABREIRA**

O começo é a parte mais importante  
de qualquer trabalho.

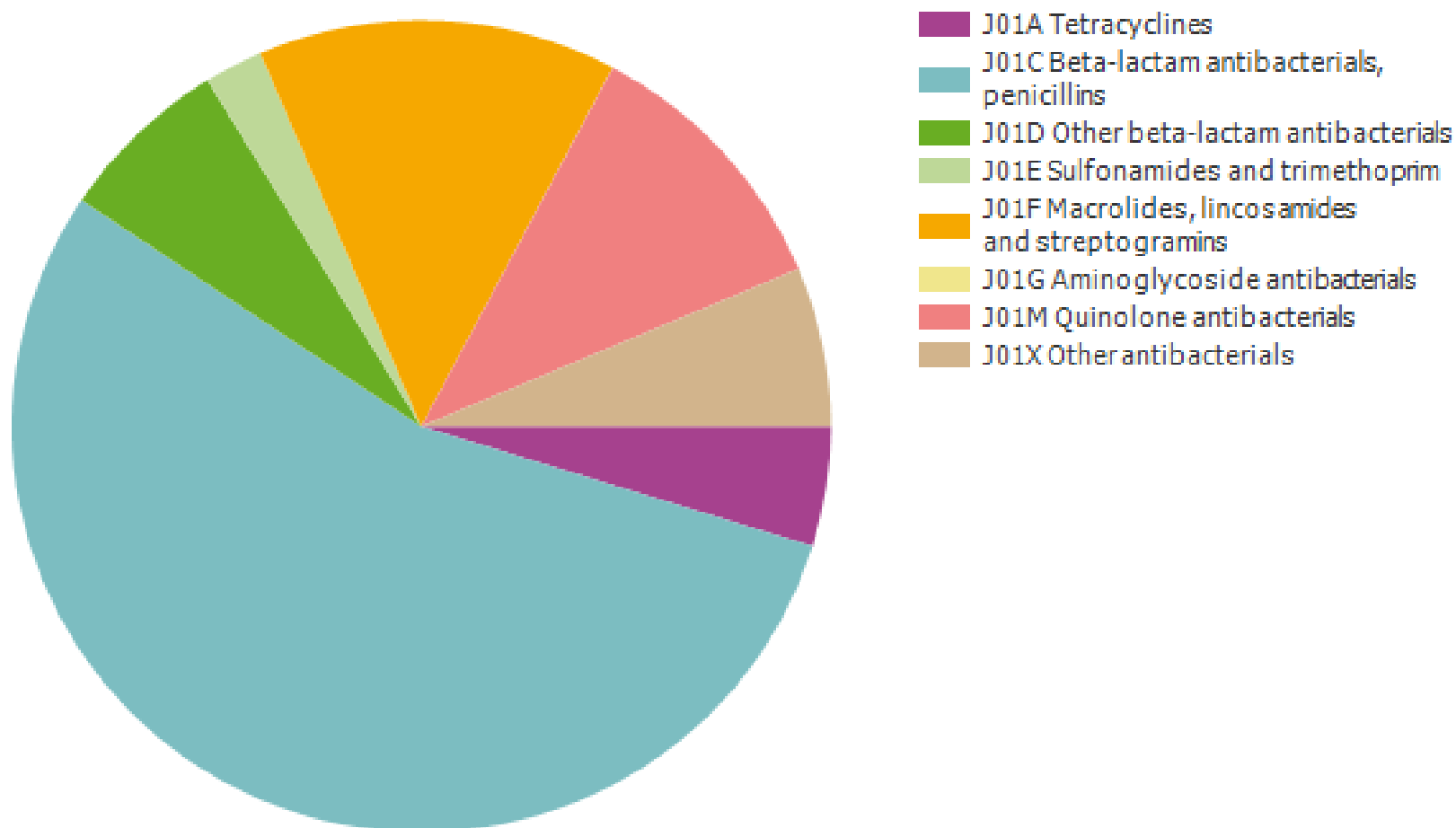
PLATÃO

## Distribution of antimicrobial consumption of Antibacterials For Systemic Use (ATC group J01) in the community (primary care sector) in Portugal, reporting year 2012

| Antimicrobial class |   | DDD per 1000 inhabitants and per day | Percent       |
|---------------------|---|--------------------------------------|---------------|
| ATC Code            | Name  |                                      |               |
| J01A                | Tetracyclines                               | 1.1                                  | 4.8%          |
| J01B                | Amphenicols                                 | 0.0                                  | 0.0%          |
| J01C                | Beta-lactam antibacterials, penicillins     | 12.4                                 | 54.6%         |
| J01D                | Other beta-lactam antibacterials            | 1.5                                  | 6.8%          |
| J01E                | Sulfonamides and trimethoprim               | 0.5                                  | 2.3%          |
| J01F                | Macrolides, lincosamides and streptogramins | 3.2                                  | 14.2%         |
| J01G                | Aminoglycoside antibacterials               | 0.0                                  | <0.1%         |
| J01M                | Quinolone antibacterials                    | 2.5                                  | 10.9%         |
| J01R                | Combinations of antibacterials              | 0.0                                  | 0.0%          |
| J01X                | Other antibacterials                        | 1.4                                  | 6.3%          |
| <b>Total</b>        |   | <b>22.7</b>                          | <b>100.0%</b> |

## Distribution of antimicrobial consumption of Antibacterials For Systemic Use (ATC group J01) in the community (primary care sector) in Portugal, reporting year 2012

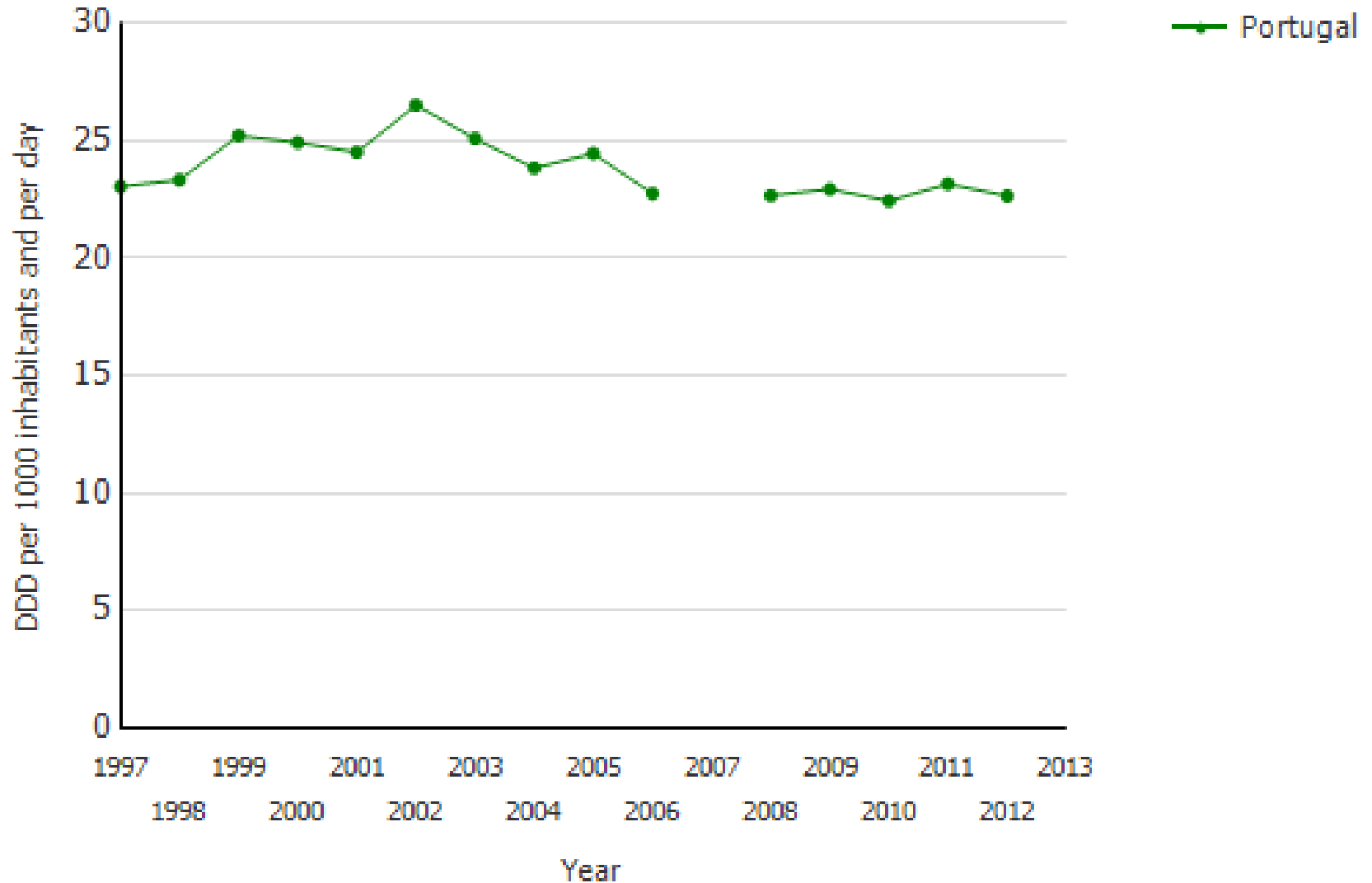
Distribution of antimicrobial consumption of Antibacterials For Systemic Use (ATC group J01) in the community (primary care sector) in Portugal, reporting year 2012



## Trend of antimicrobial consumption of Antibacterials For Systemic Use (ATC group J01) in the community (primary care sector) in Portugal from 1997 to 2013

| Year | Portugal |
|------|----------|
| 1997 | 23.1     |
| 1998 | 23.3     |
| 1999 | 25.2     |
| 2000 | 24.9     |
| 2001 | 24.5     |
| 2002 | 26.5     |
| 2003 | 25.1     |
| 2004 | 23.8     |
| 2005 | 24.5     |
| 2006 | 22.7     |
| 2008 | 22.7     |
| 2009 | 22.9     |
| 2010 | 22.4     |
| 2011 | 23.2     |
| 2012 | 22.7     |
| 2013 | -        |

## Trend of antimicrobial consumption of Antibacterials For Systemic Use (ATC group J01) in the community (primary care sector) in Portugal from 1997 to 2013

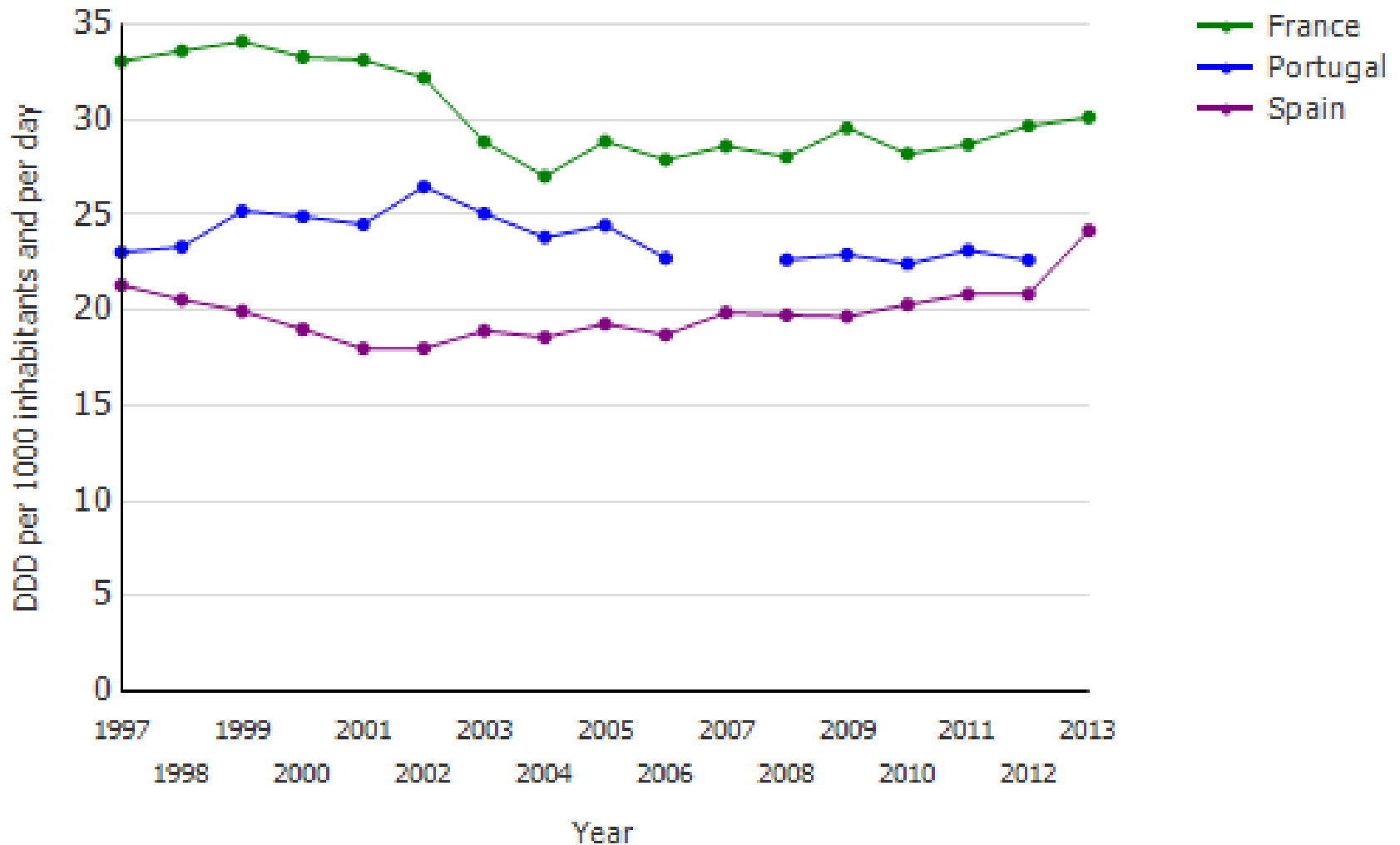


## Trend of antimicrobial consumption of Antibacterials For Systemic Use (ATC group J05) in the community (primary care sector) in Portugal, Spain and France from 1997 to 2013

| Year | France | Portugal | Spain |
|------|--------|----------|-------|
| 1997 | 33.1   | 23.1     | 21.3  |
| 1998 | 33.6   | 23.3     | 20.6  |
| 1999 | 34.1   | 25.2     | 20.0  |
| 2000 | 33.3   | 24.9     | 19.0  |
| 2001 | 33.2   | 24.5     | 18.0  |
| 2002 | 32.2   | 26.5     | 18.0  |
| 2003 | 28.9   | 25.1     | 18.9  |
| 2004 | 27.1   | 23.8     | 18.6  |
| 2005 | 28.9   | 24.5     | 19.3  |
| 2006 | 27.9   | 22.7     | 18.7  |
| 2007 | 28.6   | -        | 19.9  |
| 2008 | 28.1   | 22.7     | 19.8  |
| 2009 | 29.6   | 22.9     | 19.7  |
| 2010 | 28.2   | 22.4     | 20.3  |
| 2011 | 28.7   | 23.2     | 20.9  |
| 2012 | 29.7   | 22.7     | 20.9  |
| 2013 | 30.1   | -        | 24.2  |



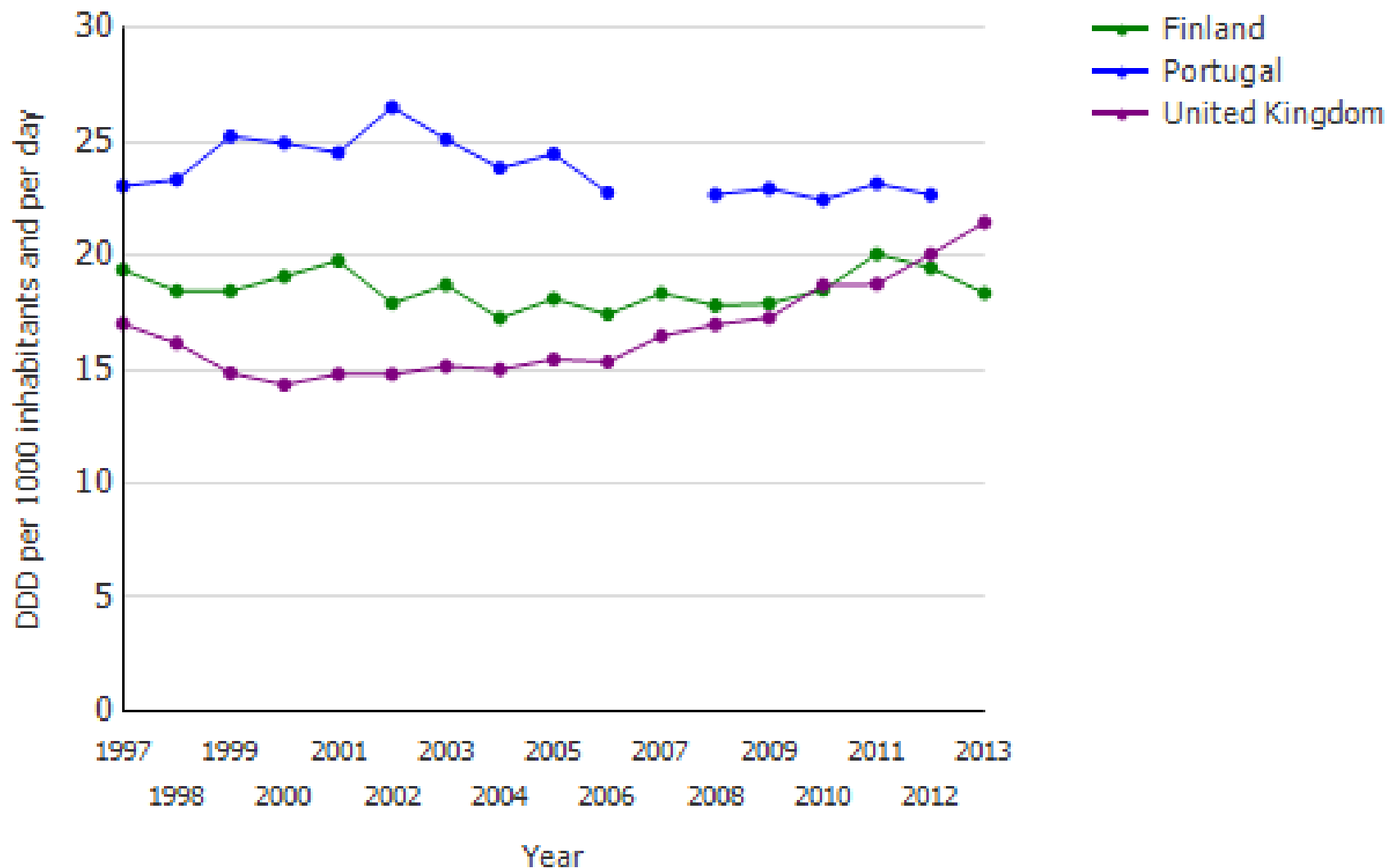
## Trend of antimicrobial consumption of Antibacterials For Systemic Use (ATC group J05) in the community (primary care sector) in Portugal, Spain and France from 1997 to 2013



## Trend of antimicrobial consumption of Antibacterials For Systemic Use (ATC group J01) in the community (primary care sector) in Portugal, Finland and United Kingdom from 1997 to 2013

| Year | Finland | Portugal | United Kingdom |
|------|---------|----------|----------------|
| 1997 | 19.4    | 23.1     | 17.0           |
| 1998 | 18.4    | 23.3     | 16.2           |
| 1999 | 18.4    | 25.2     | 14.8           |
| 2000 | 19.1    | 24.9     | 14.3           |
| 2001 | 19.8    | 24.5     | 14.8           |
| 2002 | 17.9    | 26.5     | 14.8           |
| 2003 | 18.7    | 25.1     | 15.1           |
| 2004 | 17.3    | 23.8     | 15.0           |
| 2005 | 18.1    | 24.5     | 15.4           |
| 2006 | 17.4    | 22.7     | 15.3           |
| 2007 | 18.3    | -        | 16.5           |
| 2008 | 17.8    | 22.7     | 17.0           |
| 2009 | 17.9    | 22.9     | 17.3           |
| 2010 | 18.5    | 22.4     | 18.7           |
| 2011 | 20.1    | 23.2     | 18.8           |
| 2012 | 19.5    | 22.7     | 20.1           |
| 2013 | 18.3    | -        | 21.5           |

## Trend of antimicrobial consumption of Antibacterials For Systemic Use (ATC group J01) in the community (primary care sector) in Portugal, Finland and United Kingdom from 1997 to 2013

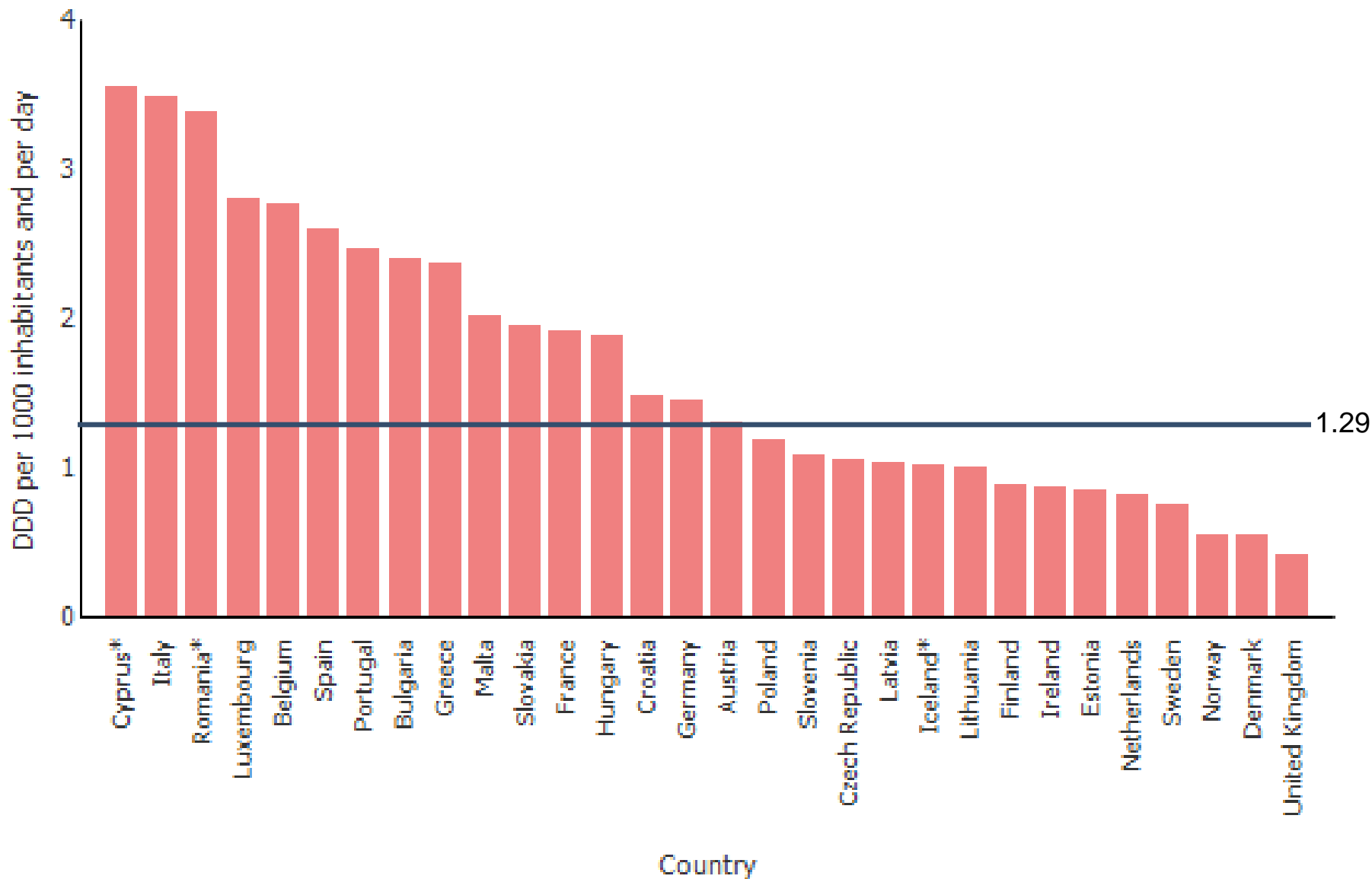


## Consumption of antimicrobials of Quinolone Antibacterials (ATC group J01M) in the community (primary care sector) in Europe, reporting year 2012

| Country        | DDD per 1000 inhabitants and per day |
|----------------|--------------------------------------|
| Austria        | 1.30                                 |
| Belgium        | 2.76                                 |
| Bulgaria       | 2.40                                 |
| Croatia        | 1.49                                 |
| Cyprus*        | 3.55                                 |
| Czech Republic | 1.06                                 |
| Denmark        | 0.55                                 |
| Estonia        | 0.85                                 |
| Finland        | 0.89                                 |
| France         | 1.92                                 |
| Germany        | 1.45                                 |
| Greece         | 2.37                                 |
| Hungary        | 1.89                                 |
| Iceland*       | 1.02                                 |
| Ireland        | 0.87                                 |
| Italy          | 3.48                                 |

| Country                           | DDD per 1000 inhabitants and per day |
|-----------------------------------|--------------------------------------|
| Latvia                            | 1.03                                 |
| Liechtenstein                     | -                                    |
| Lithuania                         | 1.00                                 |
| Luxembourg                        | 2.79                                 |
| Malta                             | 2.01                                 |
| Netherlands                       | 0.81                                 |
| Norway                            | 0.56                                 |
| Poland                            | 1.19                                 |
| Portugal                          | 2.47                                 |
| Romania*                          | 3.38                                 |
| Slovakia                          | 1.95                                 |
| Slovenia                          | 1.08                                 |
| Spain                             | 2.61                                 |
| Sweden                            | 0.75                                 |
| United Kingdom                    | 0.42                                 |
| <b>ACES Gerês/Cabreira (2012)</b> | <b>1.29</b>                          |

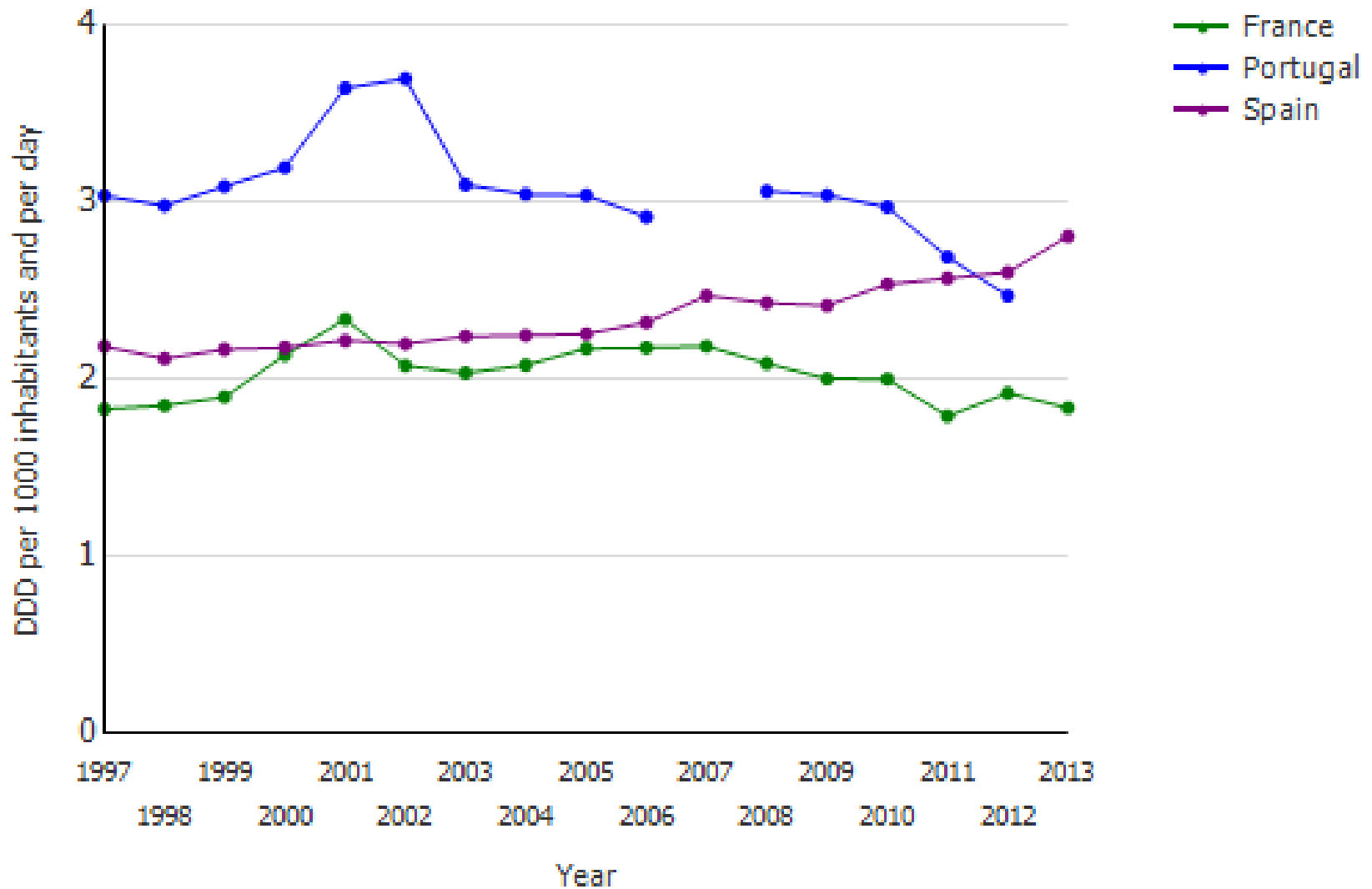
## Consumption of antimicrobials of Quinolone Antibacterials (ATC group J01M) in the community (primary care sector) in Europe, reporting year 2012



## Trend of antimicrobial consumption of Quinolone Antibacterials (ATC group J01M) in the community (primary care sector) in Portugal, Spain and France from 1997 to 2013

| Year | France | Portugal | Spain |
|------|--------|----------|-------|
| 1997 | 1.83   | 3.04     | 2.18  |
| 1998 | 1.85   | 2.98     | 2.12  |
| 1999 | 1.90   | 3.09     | 2.17  |
| 2000 | 2.14   | 3.20     | 2.18  |
| 2001 | 2.34   | 3.65     | 2.22  |
| 2002 | 2.08   | 3.70     | 2.20  |
| 2003 | 2.04   | 3.10     | 2.24  |
| 2004 | 2.08   | 3.05     | 2.25  |
| 2005 | 2.17   | 3.04     | 2.26  |
| 2006 | 2.18   | 2.92     | 2.32  |
| 2007 | 2.19   | -        | 2.47  |
| 2008 | 2.09   | 3.06     | 2.43  |
| 2009 | 2.00   | 3.04     | 2.42  |
| 2010 | 2.00   | 2.97     | 2.54  |
| 2011 | 1.79   | 2.69     | 2.57  |
| 2012 | 1.92   | 2.47     | 2.61  |
| 2013 | 1.84   | -        | 2.81  |

## Trend of antimicrobial consumption of Quinolone Antibacterials (ATC group J01M) in the community (primary care sector) in Portugal, Spain and France from 1997 to 2013

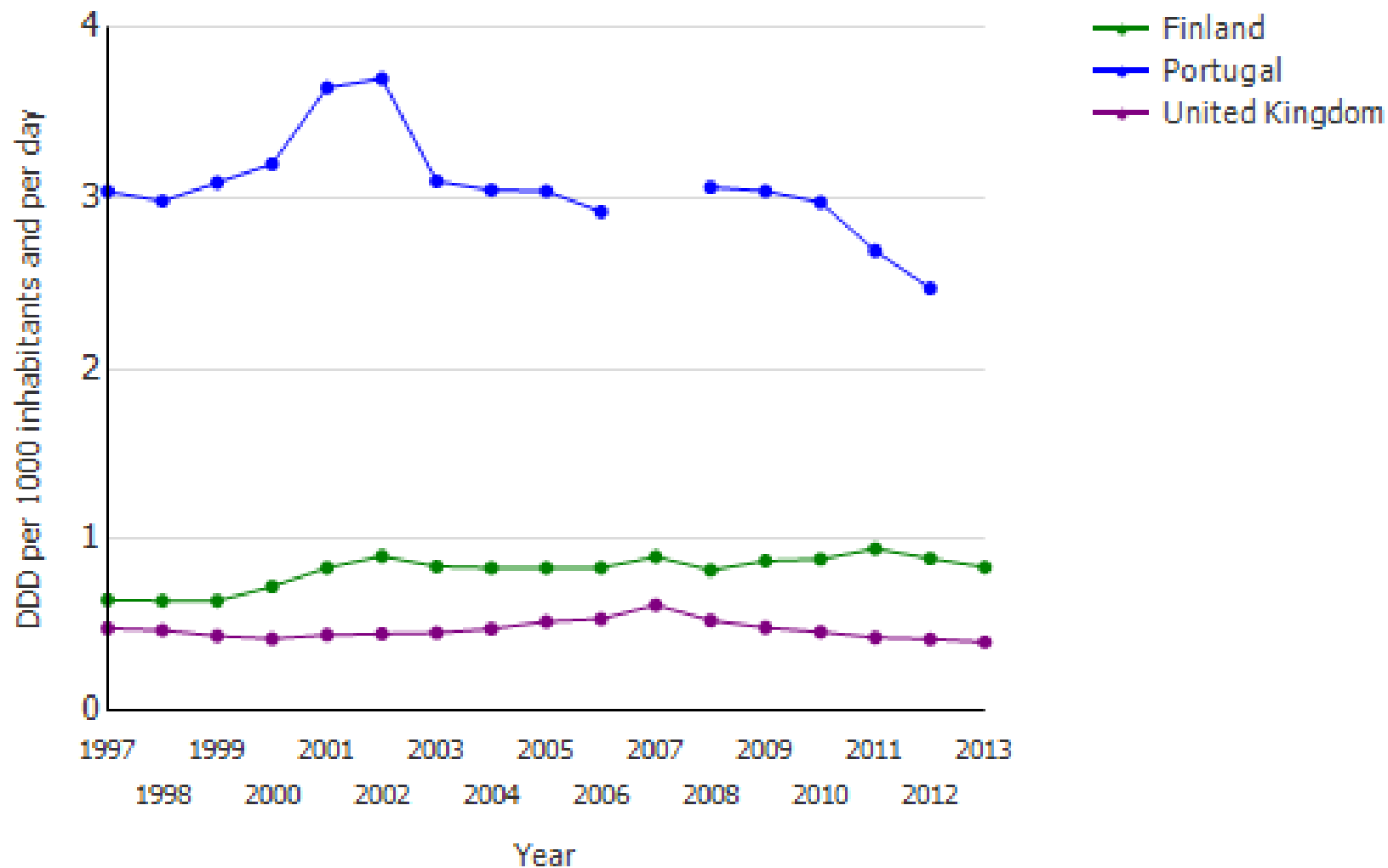


## Trend of antimicrobial consumption of Quinolone Antibacterials (ATC group J01M) in the community (primary care sector) in Portugal, United Kingdom and Finland from 1997 to 2013

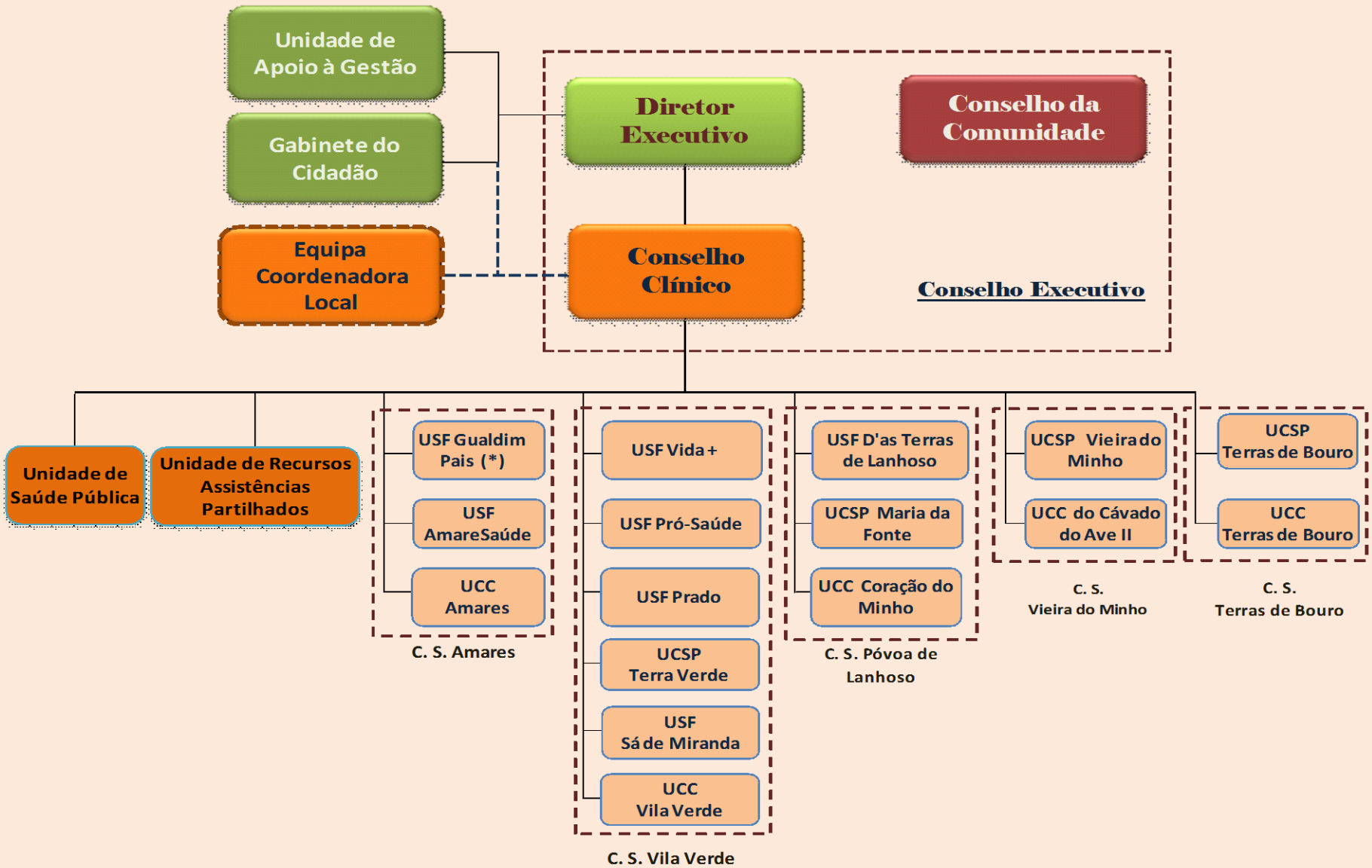
| Year | Finland | Portugal | United Kingdom |
|------|---------|----------|----------------|
| 1997 | 0.65    | 3.04     | 0.48           |
| 1998 | 0.64    | 2.98     | 0.47           |
| 1999 | 0.64    | 3.09     | 0.43           |
| 2000 | 0.72    | 3.20     | 0.42           |
| 2001 | 0.83    | 3.65     | 0.44           |
| 2002 | 0.90    | 3.70     | 0.45           |
| 2003 | 0.84    | 3.10     | 0.45           |
| 2004 | 0.83    | 3.05     | 0.48           |
| 2005 | 0.83    | 3.04     | 0.52           |
| 2006 | 0.83    | 2.92     | 0.53           |
| 2007 | 0.90    | -        | 0.62           |
| 2008 | 0.82    | 3.06     | 0.53           |
| 2009 | 0.87    | 3.04     | 0.48           |
| 2010 | 0.88    | 2.97     | 0.46           |
| 2011 | 0.95    | 2.69     | 0.43           |
| 2012 | 0.89    | 2.47     | 0.42           |
| 2013 | 0.84    | -        | 0.40           |



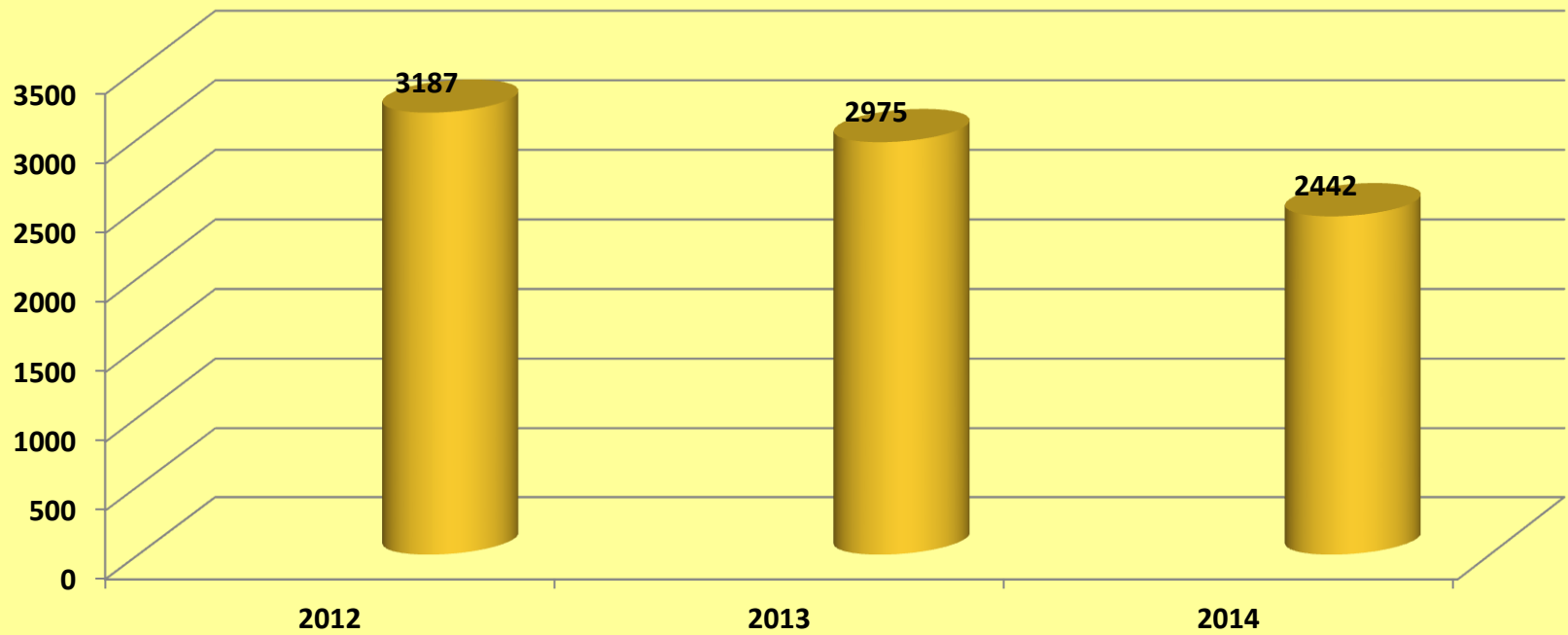
## Trend of antimicrobial consumption of Quinolone Antibacterials (ATC group J01M) in the community (primary care sector) in Portugal, Spain and France from 1997 to 2013



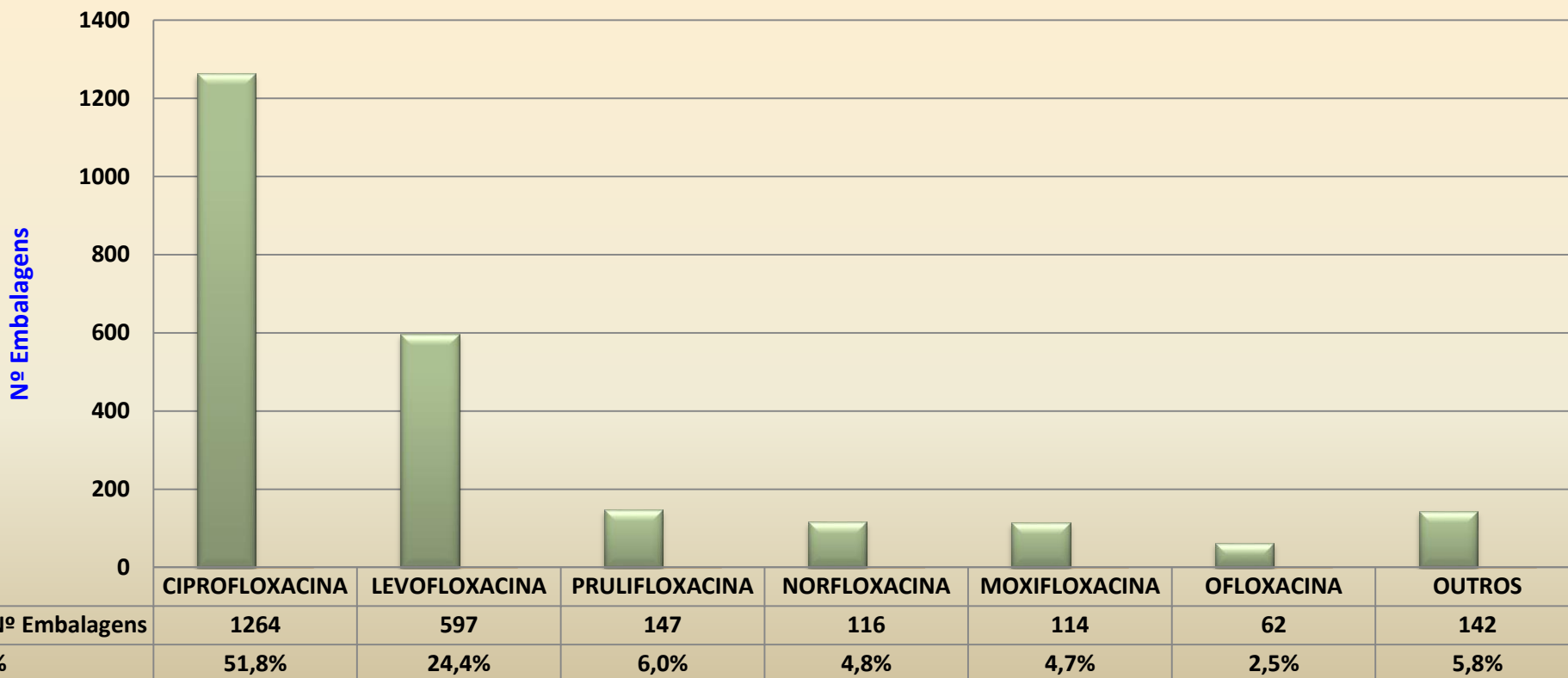
# ACES do Cávado II - Gerês / Cabreira



## ACES Gerês/Cabreira Prescrição de Quinolonas

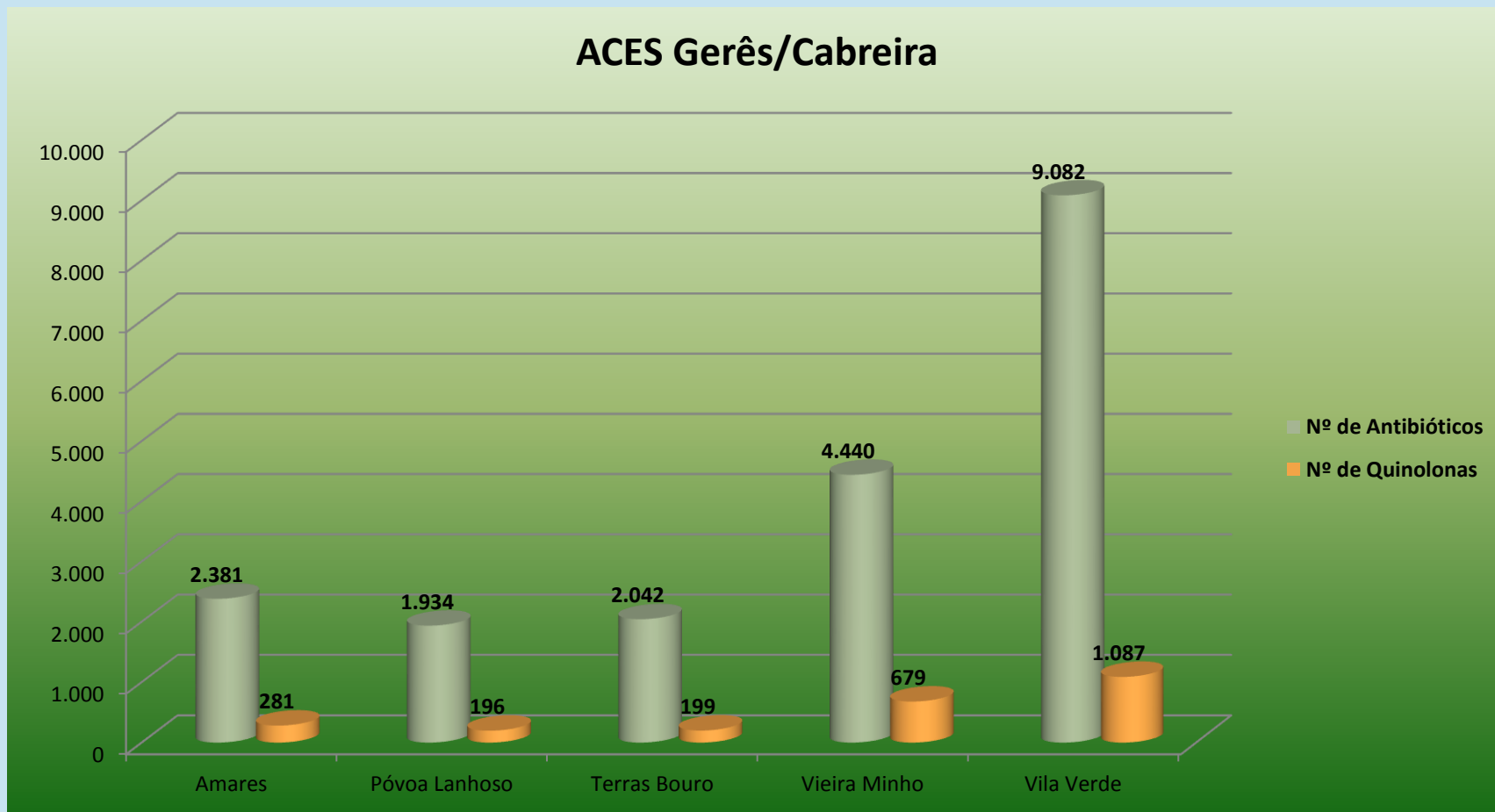


## Prescrições de Quilononas no ACES Gerês/Cabreira - Ano 2014



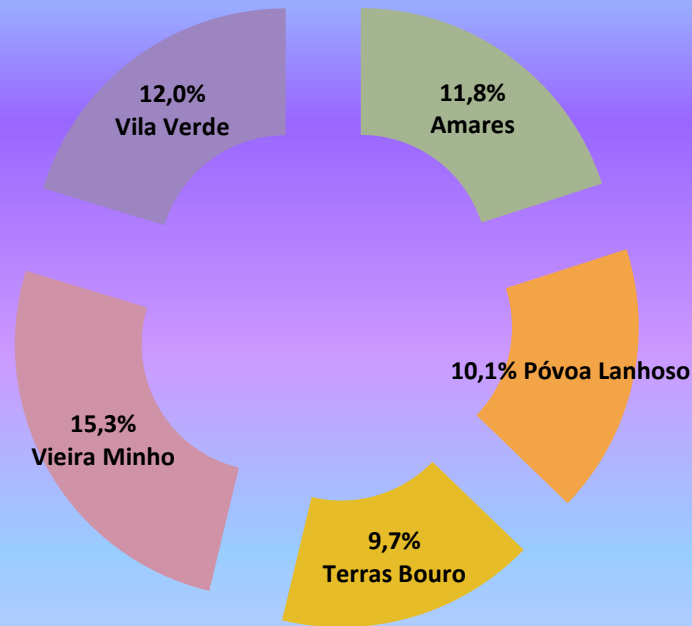
# 1. Prescrição de Quinolonas/Antibióticos no ACES

## 2014



# 1. Prescrição de Quinolonas no ACES

## ACES Gerês/Cabreira 12,3 % Quinolonas prescritas em 2014



Há algo de fascinante na ciência: de um mínimo de factos pode retirar-se um mundo de conjecturas.

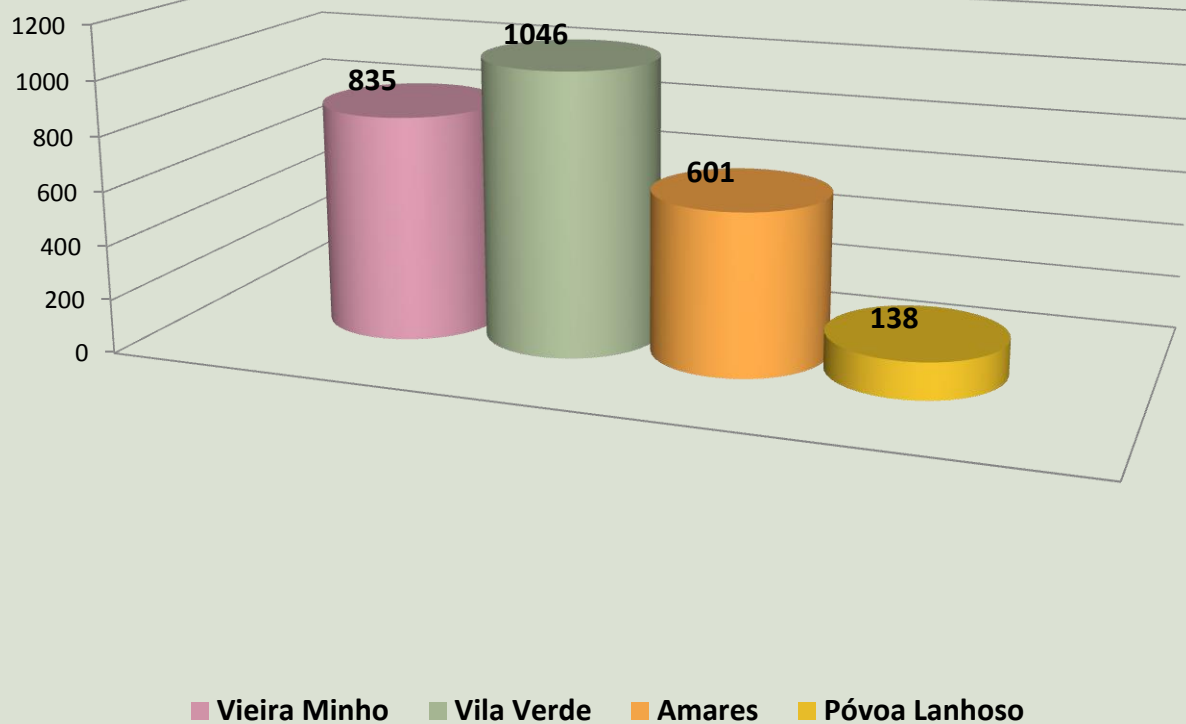
**MARK TWAIN (1835 – 1910)**

**Em que patologias são  
prescritas quinolonas?**

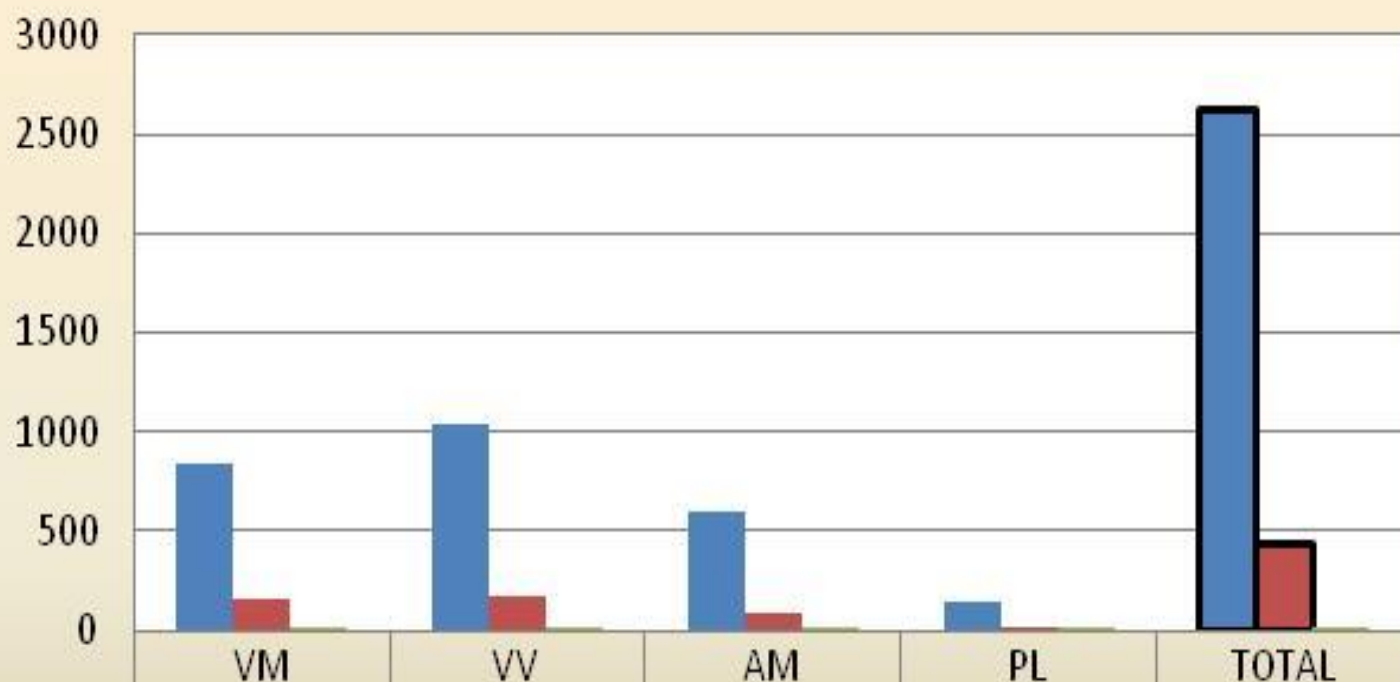


# **Infecções do Tracto Urinário**

## Número de Amostras da Colheita de Urina



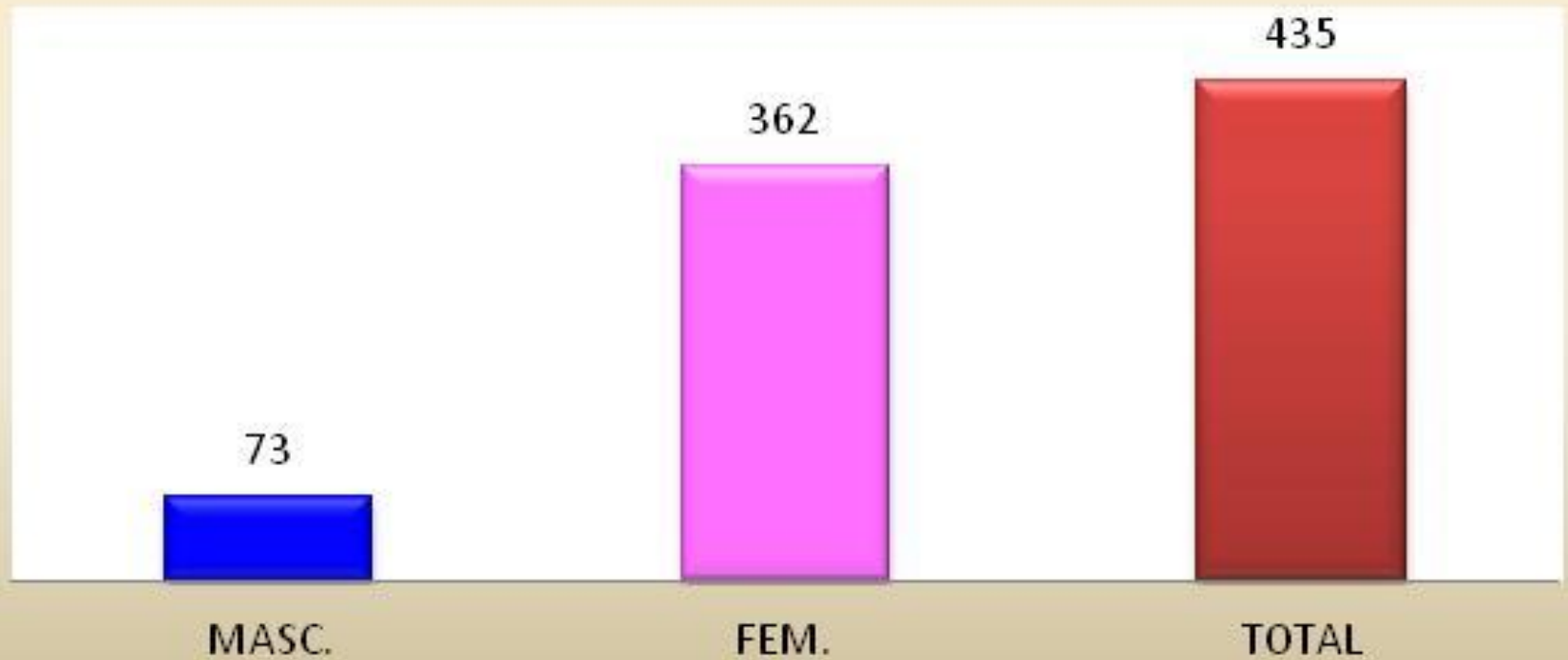
## RELAÇÃO ENTRE COLHEITAS E RESULTADOS POSITIVOS



|                      |      |      |      |      |      |
|----------------------|------|------|------|------|------|
| ■ TOTAL COLHEITAS    | 835  | 1046 | 601  | 138  | 2620 |
| ■ RESULTADO POSITIVO | 154  | 176  | 90   | 15   | 435  |
| ■ %                  | 18,4 | 16,8 | 15,0 | 10,9 | 16,6 |

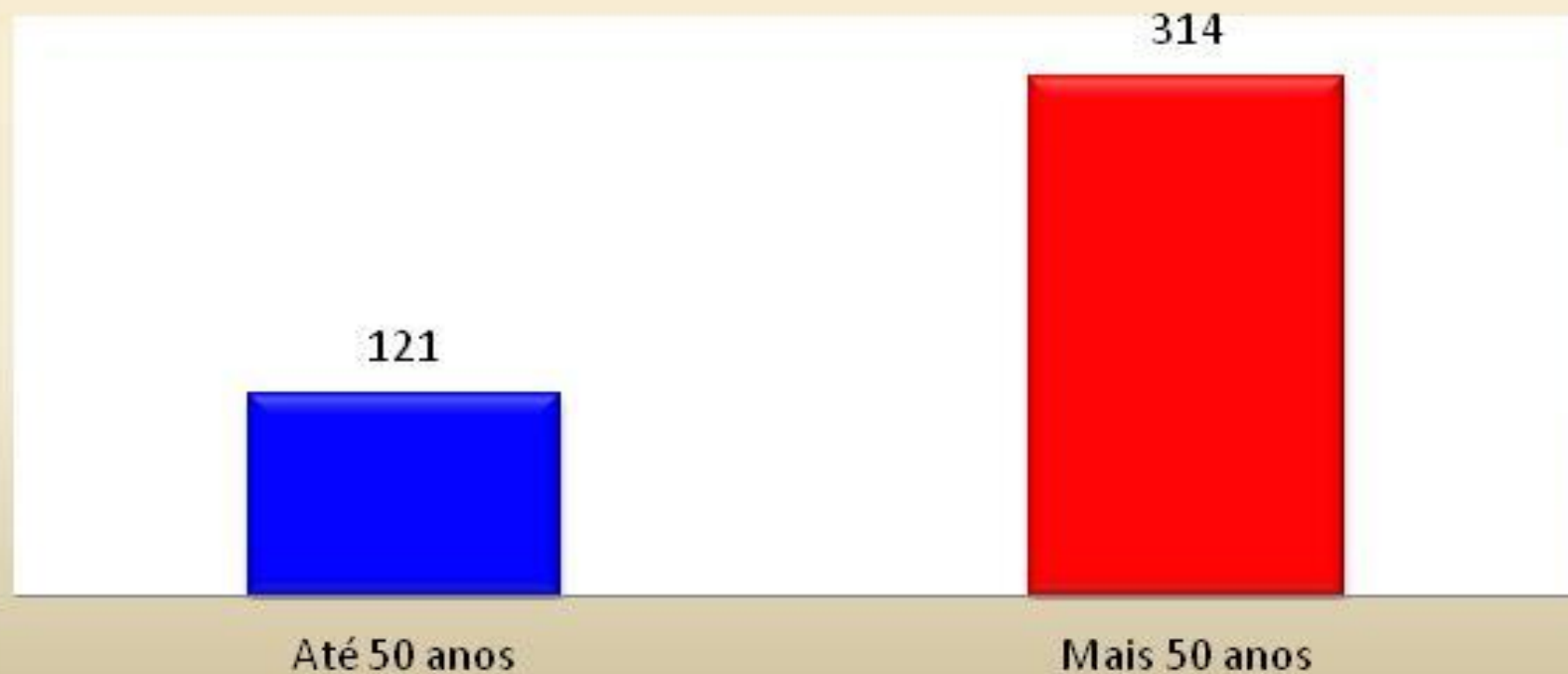
## Distribuição por Sexo

■ MASC. ■ FEM. ■ TOTAL

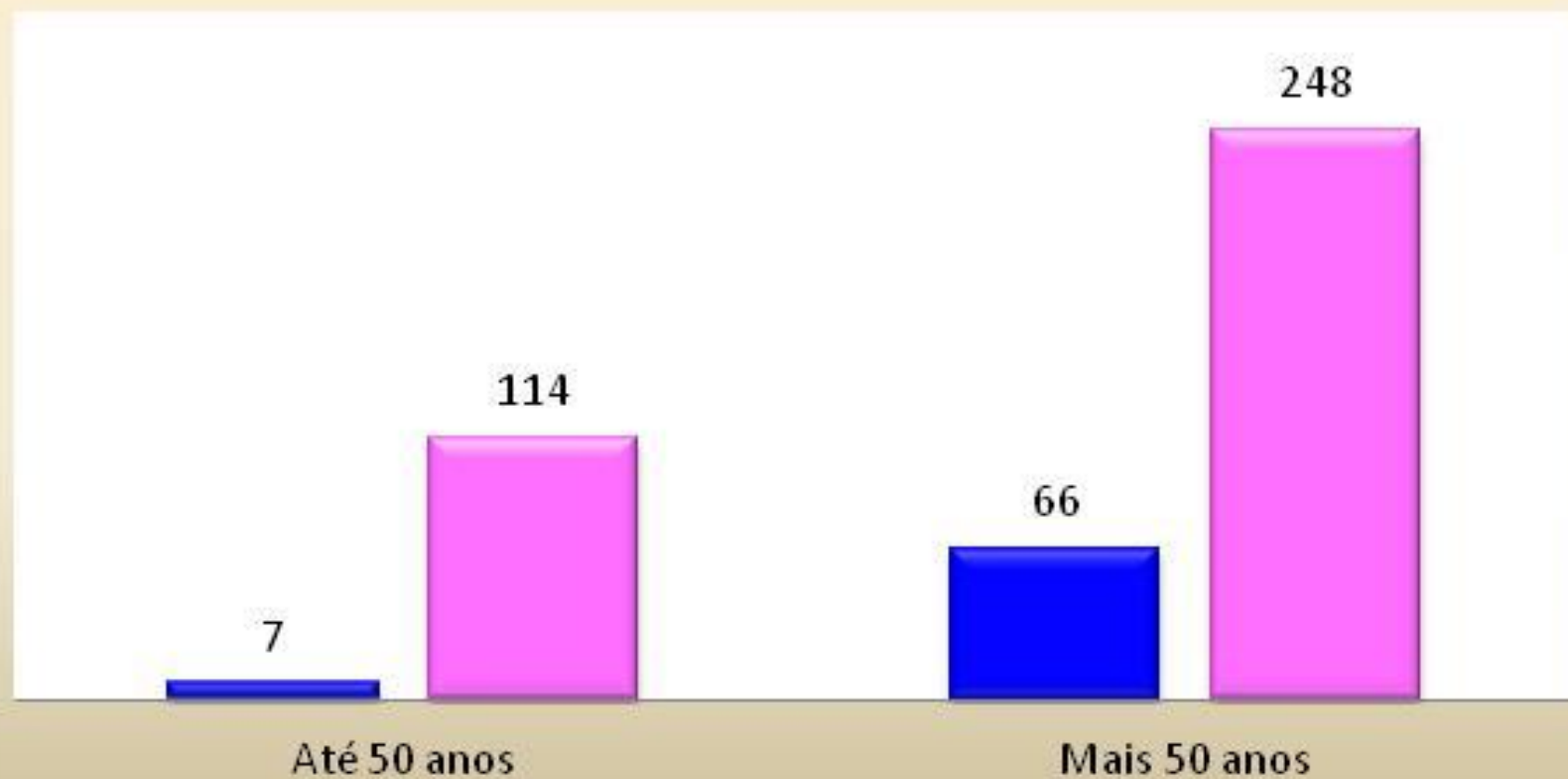


## Distribuição por Grupo Etário

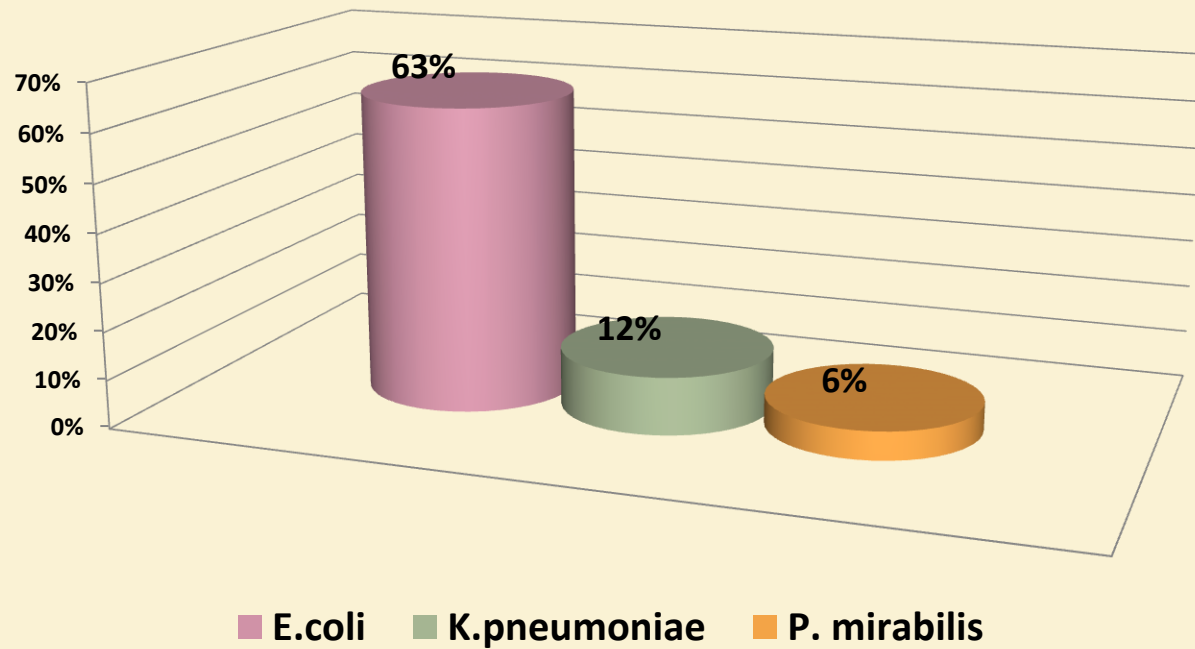
■ Até 50 anos ■ Mais 50 anos



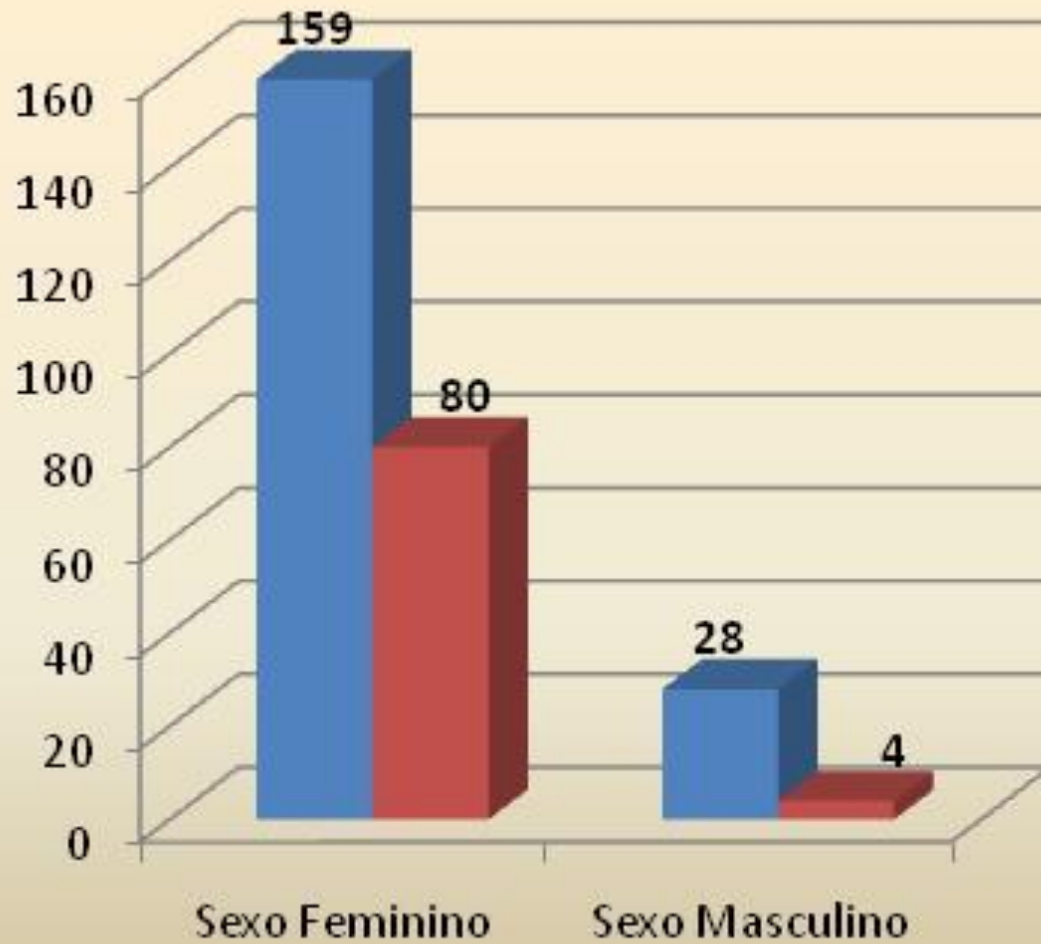
## Distribuição por Grupo Etário e Sexo



### Bactérias mais representativas da amostra



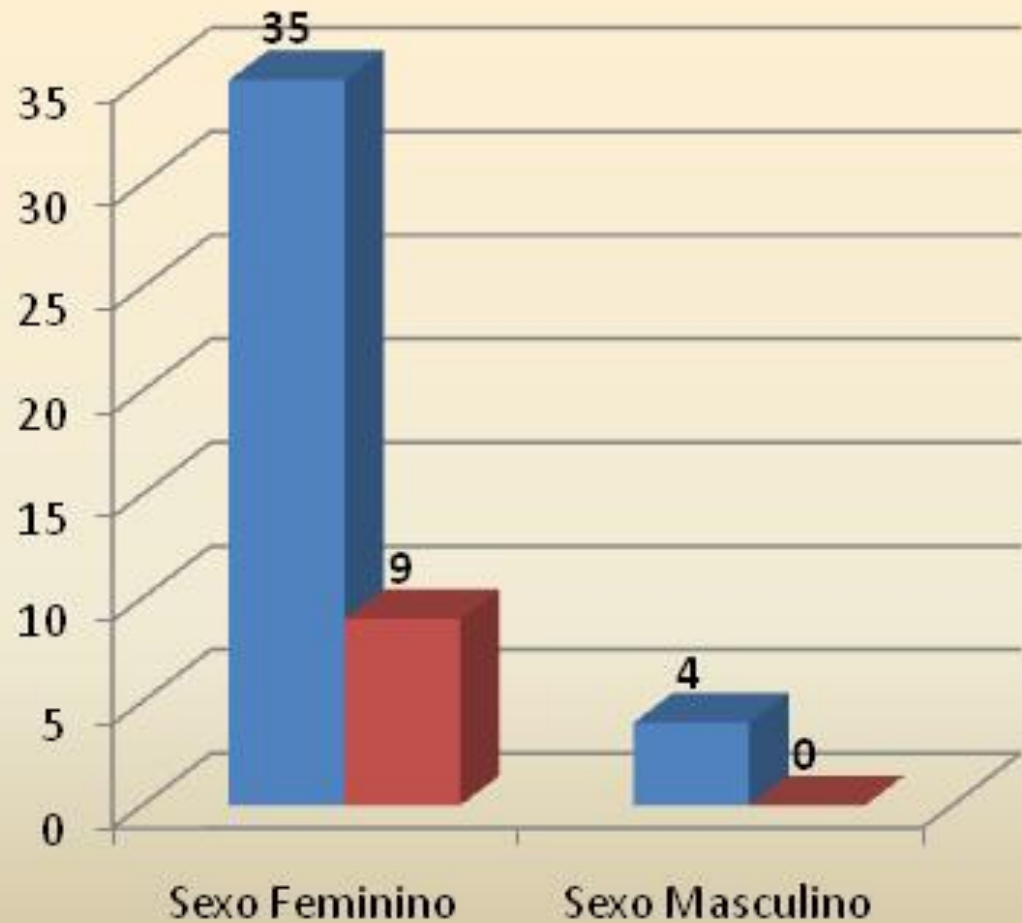
## E. coli



- Maior 50 anos
- Menor ou igual a 50 anos



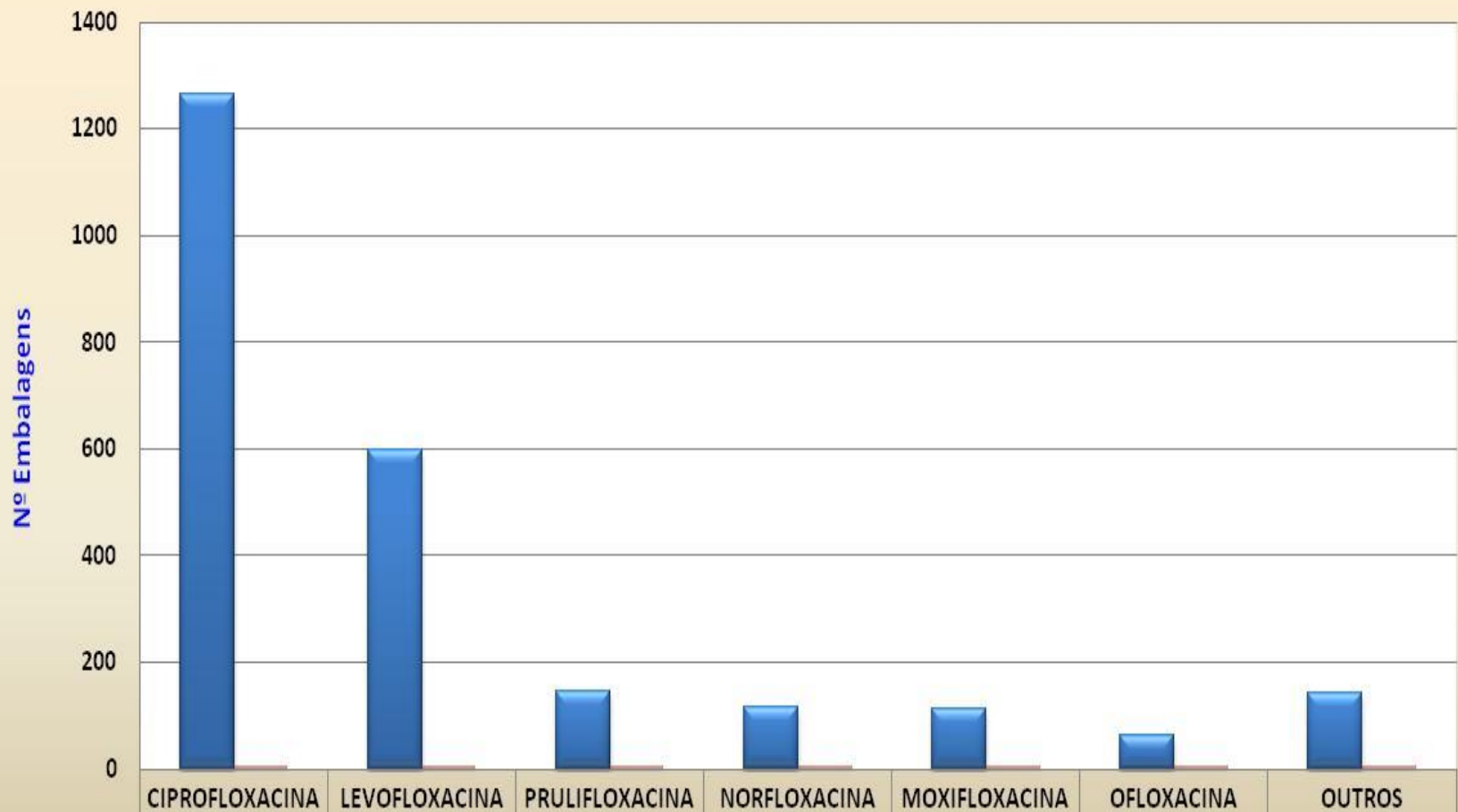
## K. pneumoniae



■ Maior 50 anos

■ Menor ou igual a 50 anos

## Prescrições de Quilononas no ACES Gerês/Cabreira - Ano 2014



■ Nº Embalagens

1264

597

147

116

114

62

142

■ %

51,8%

24,4%

6,0%

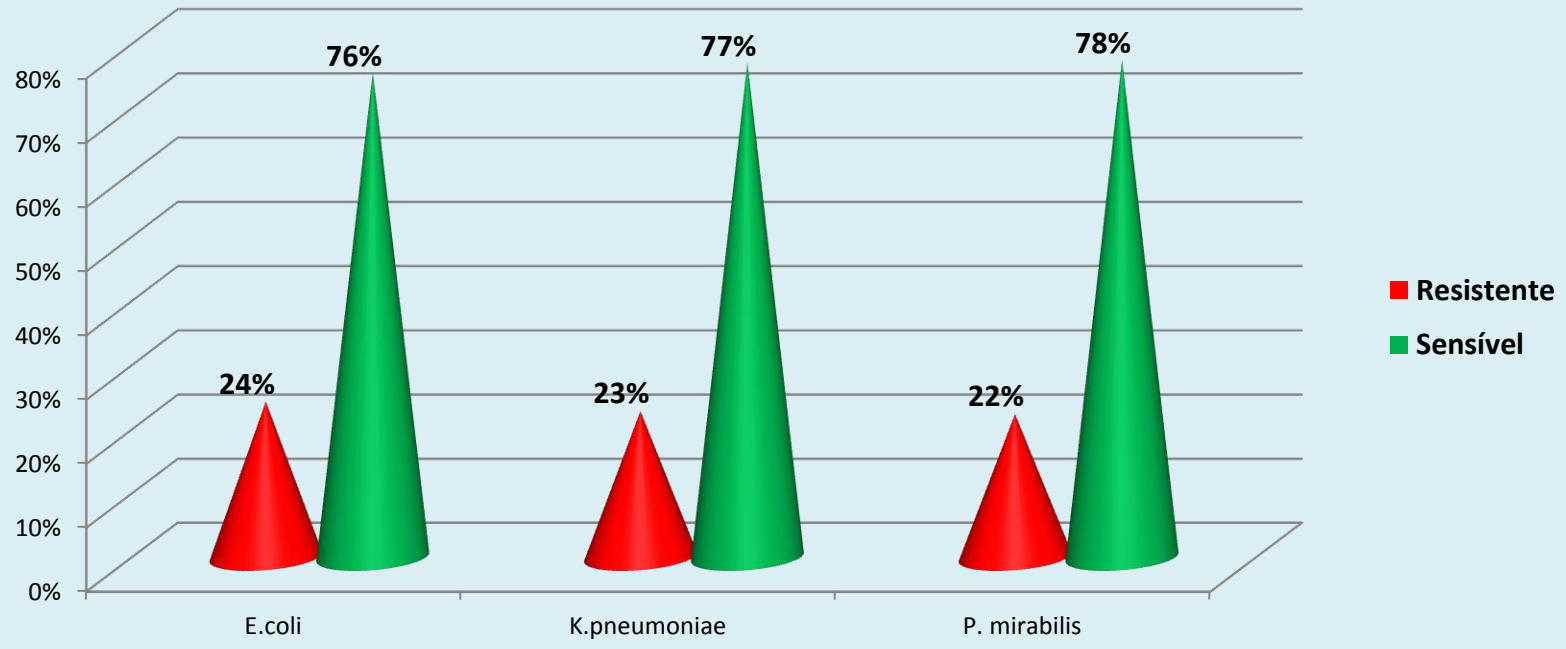
4,8%

4,7%

2,5%

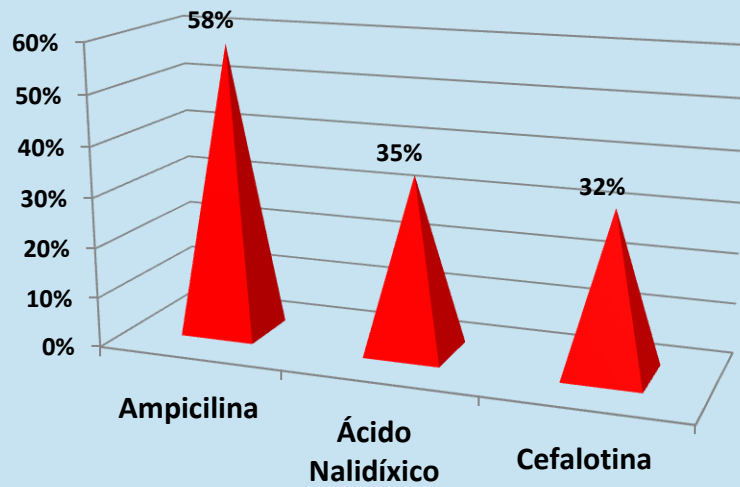
5,8%

### CIPROFLOXACINA

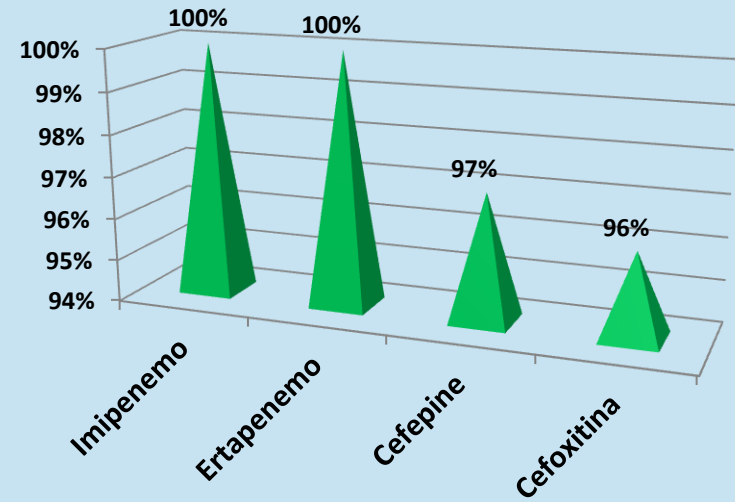


## E.COLI

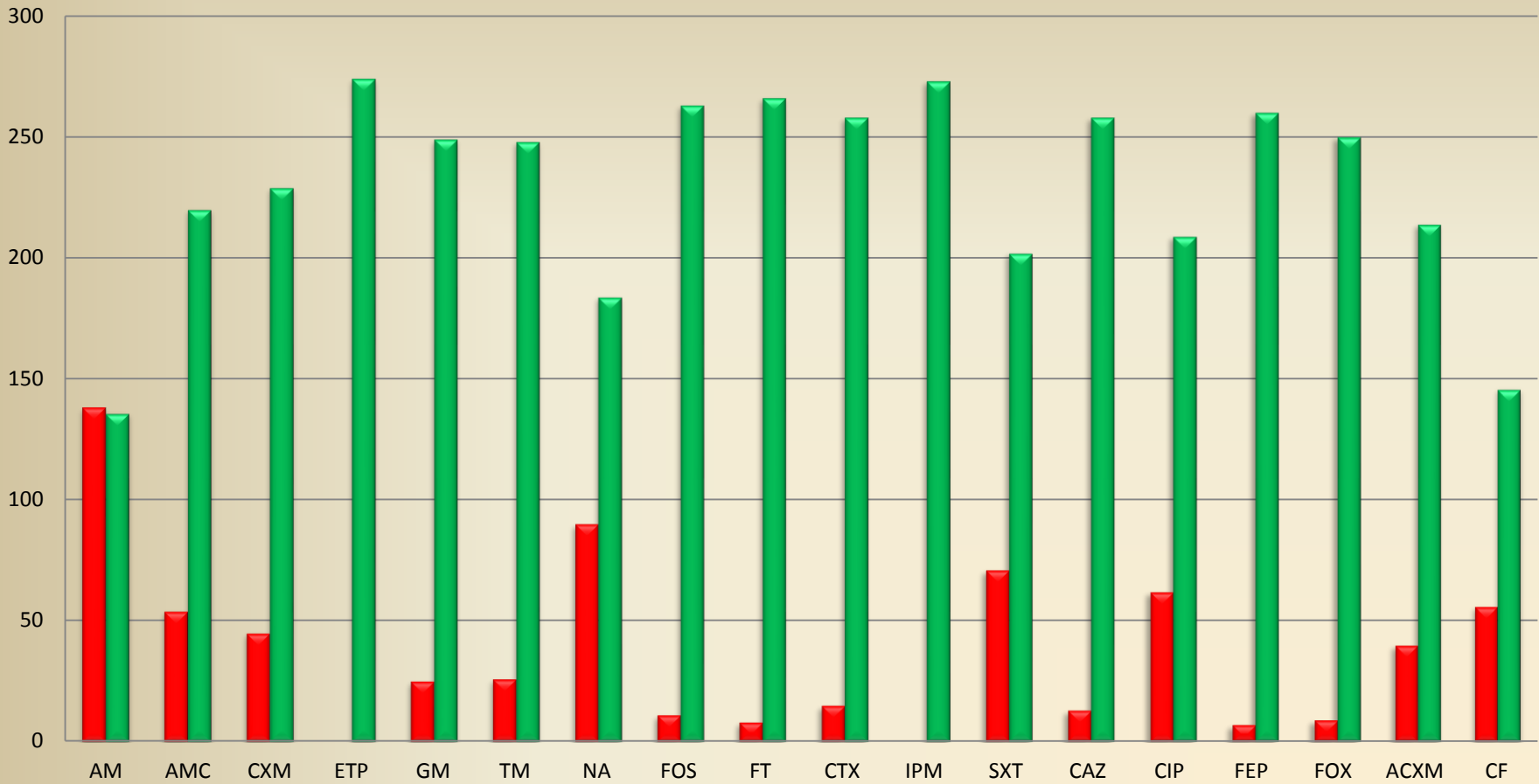
### Resistência



### Sensibilidade



# E. COLI

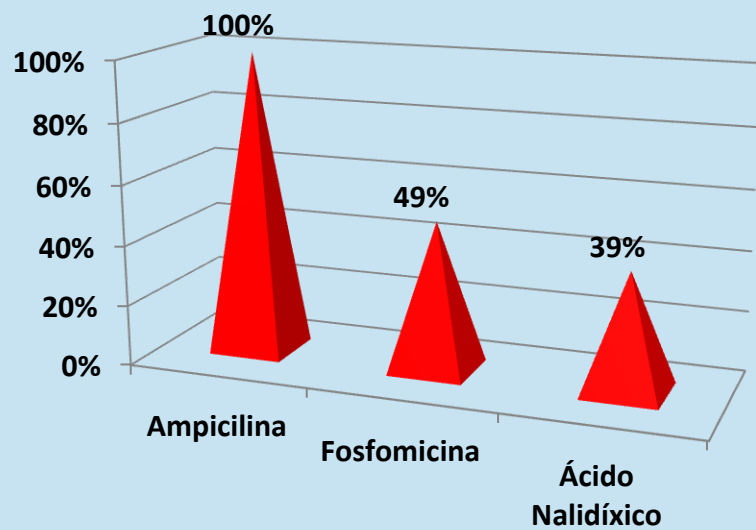


■ RESISTÊNCIA

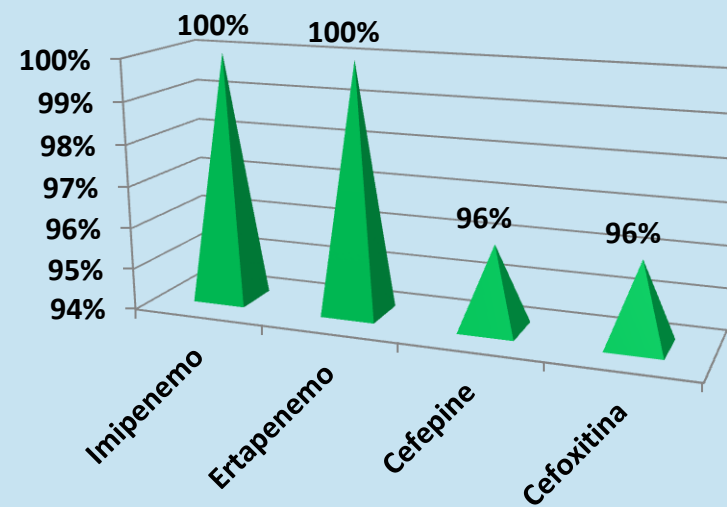
■ SENSIBILIDADE

## K.PNEUMONIAE

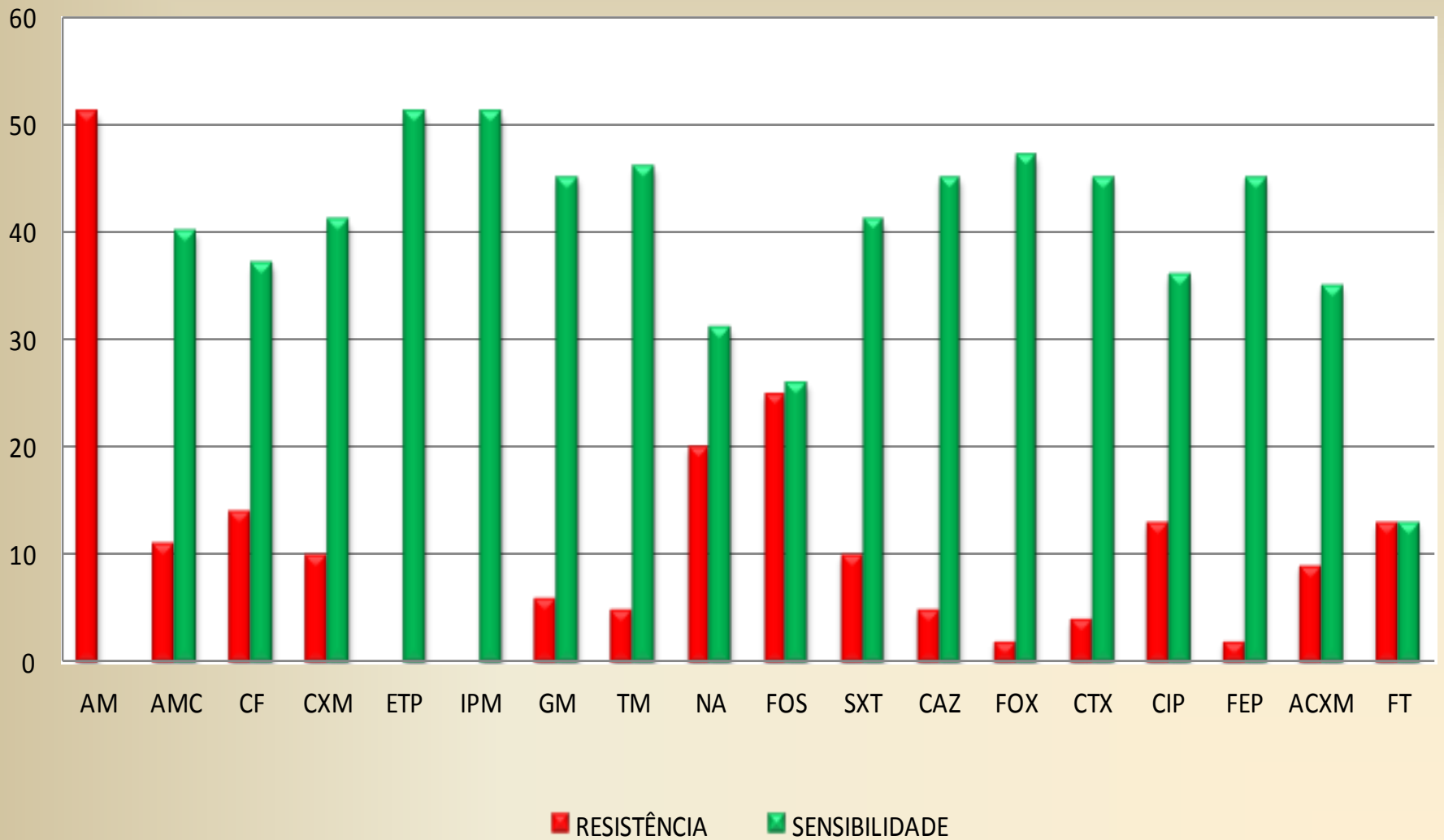
### Resistência



### Sensibilidade

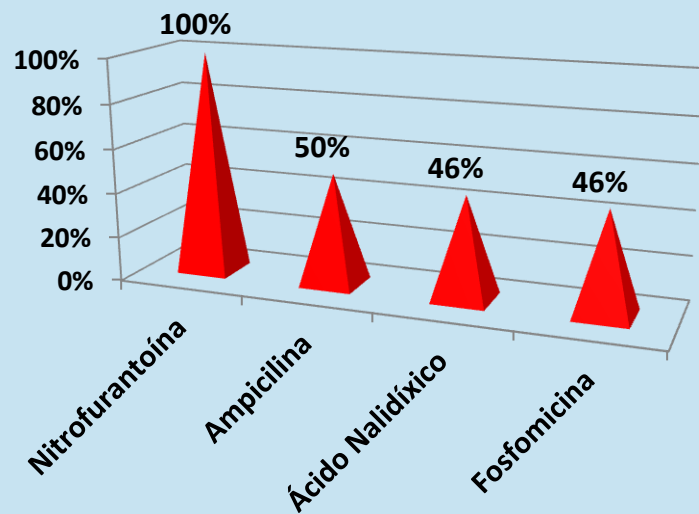


# K. PNEUMONIAE

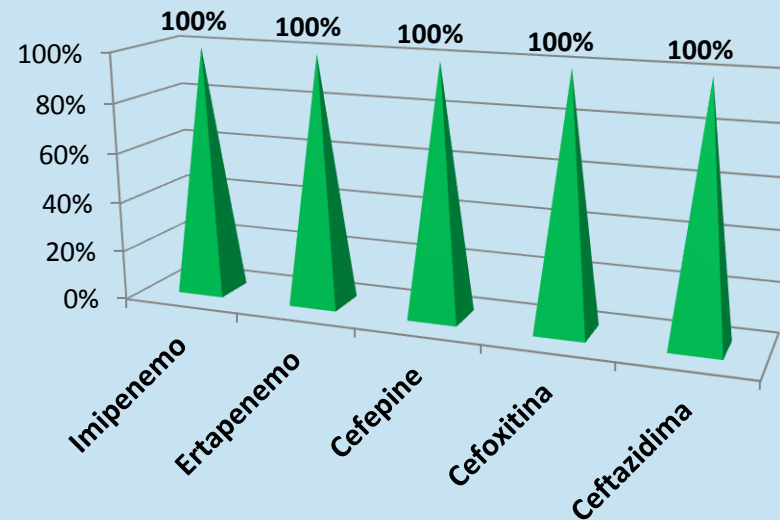


## P. MIRABILIS

### Resistência

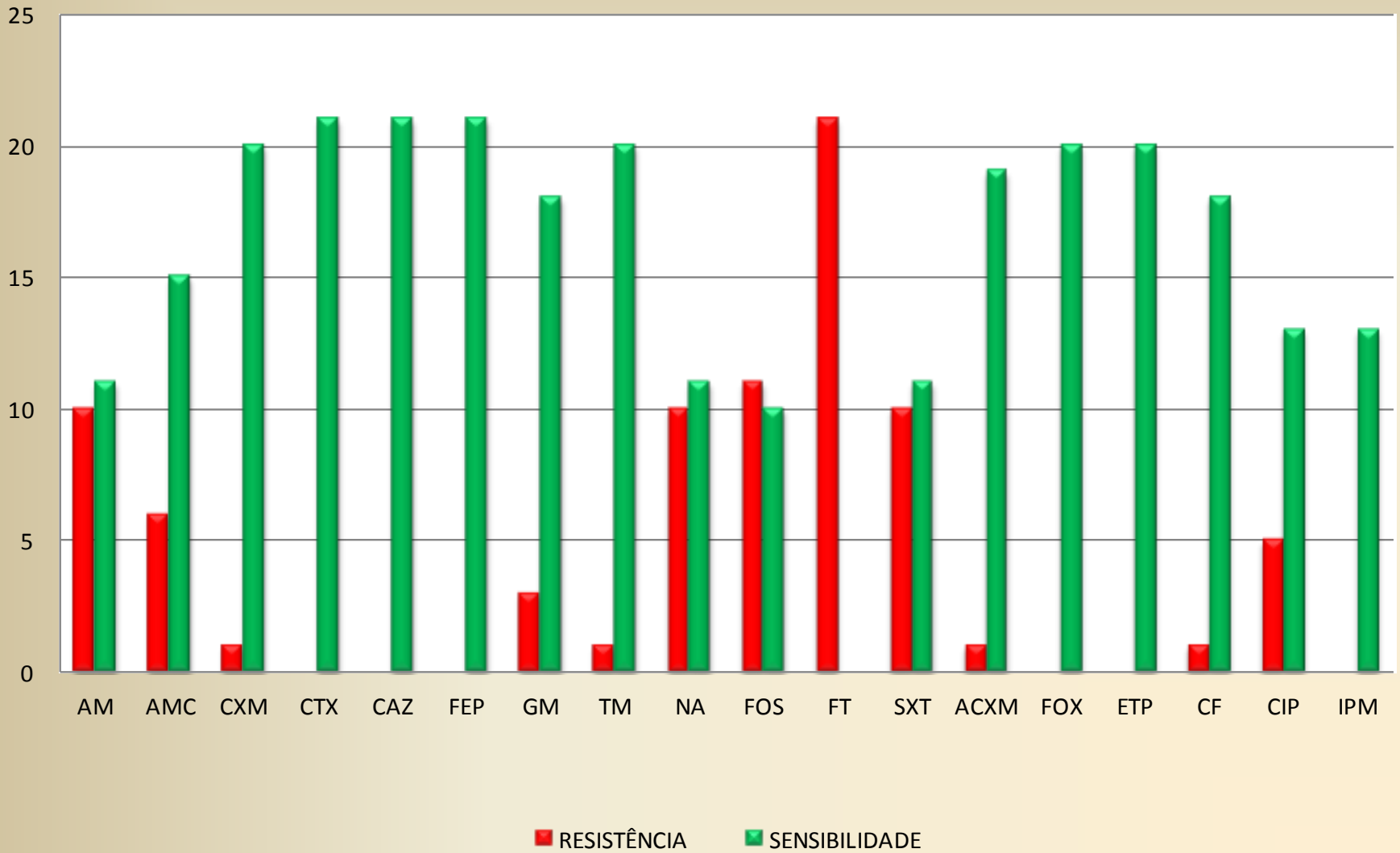


### Sensibilidade

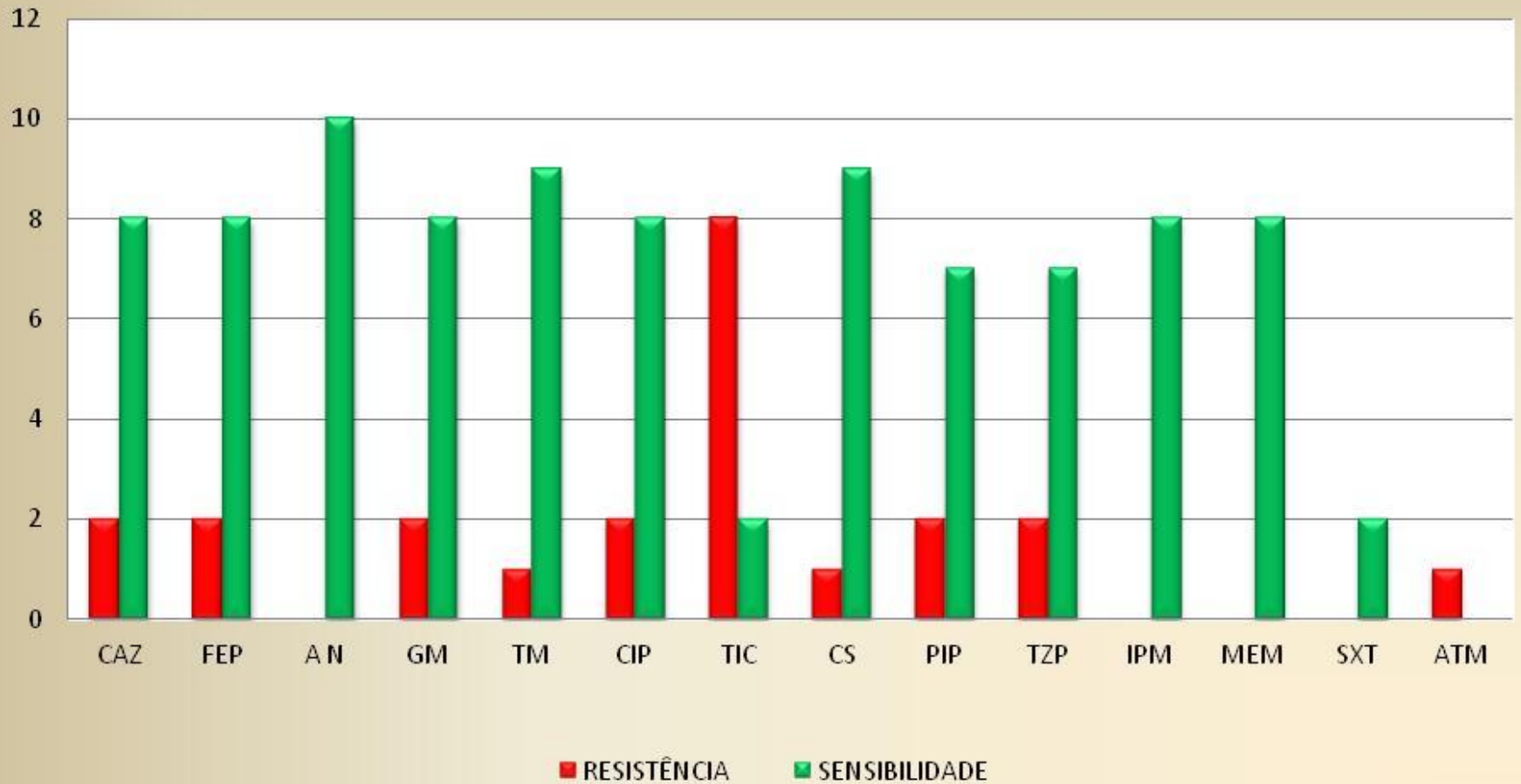




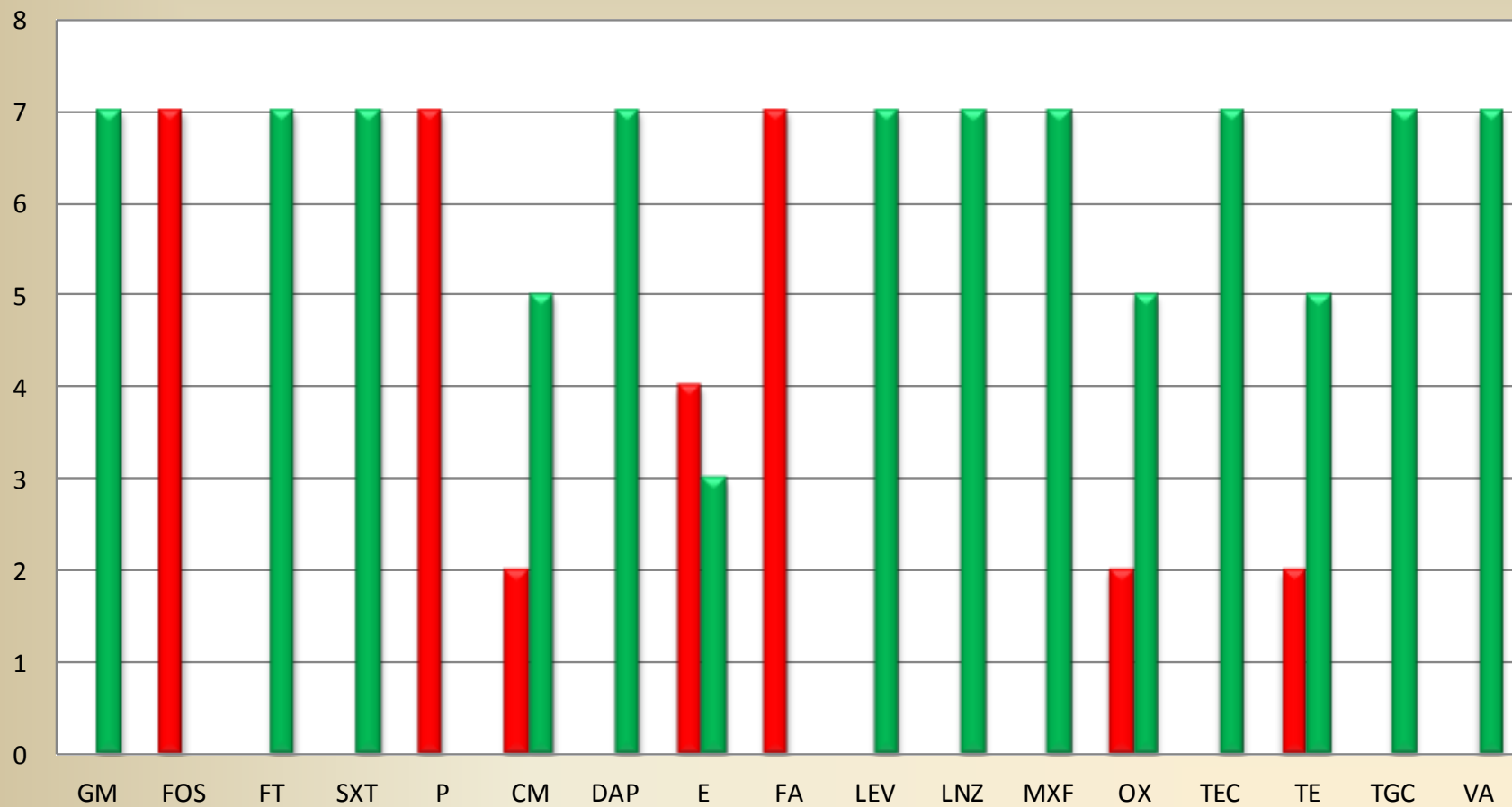
# P. MIRABILIS



## P. AERUGINOSA



# S. SAPROPHYTICUS



■ RESISTÊNCIA

■ SENSIBILIDADE

**É a penicilina que cura o povo ... mas é o  
vinho que os torna felizes.**

**A. FLEMING (1881 – 1955)**



## 3. CONCLUSÕES

1. **A prescrição de quinolonas parece estar a diminuir em Portugal;**
2. **As doses diárias definidas no ACES Gerês/Cabreira estão em 1,29 (em Portugal: 2,47 - 2012);**
3. **A quinolona mais prescrita no ACES Gerês/Cabreira é a Ciprofloxacina;**
4. **Claramente a E. Coli é a bactéria mais encontrada em infecções urinárias , e particularmente em mulheres;**
5. **A Klebsiella é rara abaixo dos 50 anos (2.8% ) e em homens (5.5% );**
6. **No tratamento das diversas infecções existem muitos antibióticos, ainda com sensibilidade para as diferentes bactérias, não havendo necessidade de recurso às quinolonas.**
7. **Com estas e outras informações talvez se consigam propôr alguns esquemas antibióticos.**

**Sou inimigo das explicações longas; elas enganam a quem as dá ou a quem as ouve ... em geral a ambos.**

**J. W. von GOETHE (1749 – 1832)**