CORRESPONDENCE

A Survey of Outpatient Antibiotic Prescribing for Cystitis

by Dr. Edward Velasco, S.M., Dipl.-Psych. Ines Noll, Dr. med. vet. Werner Espelage, Dr. sc. nat. Antina Ziegelmann, Prof. Dr. med. Gérard Krause, Dr. med. Tim Eckmanns in volume 50/2012

Fluoroquinolones Prescribed Too Frequently

In contradiction to evidence based recommendations, fluoroquinolones are prescribed far too often for uncomplicated urinary tract infections. This has serious and negative effects on the epidemiological situation for such infections.

The reason for this behavior on the part of doctors may be the free samples distributed by pharmaceutical companies. This accounts for many fluoroquinolones having been brought into circulation in Germany in recent years. It has been proved that distributed samples, notwithstanding their good and non-suspicious reputation (even with critical physicians), result in inappropriate prescriptions (1). Even the argument that samples constitute support for patients who are financially less well-off cannot be proved (2).

"Good common sense" enables further analysis: why would the pharmaceutical industry deliver social work? Manufacturers should, and must, sell. In order to improve sales, samples are handed out as enticements. Doctors are not obliged to support this sales strategy. The argument that samples may contribute to therapeutic experiences pales into insignificance in view of two permitted N1-packs per drug and per year. However, other insights may be gleaned: samples lead to a better presence in the market, even if guidelines advise against their use.

DOI: 10.3238/arztebl.2013.0327a

REFERENCES

1. Adair RF, Holmgren R: Do drug samples influence resident prescribing behavior? A randomized trial. Am J Med 2005; 118: 881–4.
2. Cutrona SL, et al.: Free drug samples in the United States, characteristics of pediatric recipients and safety concerns. Pediatrics 2008; 122: 736–42.
3. Velasco E, Noll I, Espelage W, Ziegelmann A, Krause G, Eckmanns T: A survey of outpatient antibiotic prescribing for cystitis. Dtsch Arztebl Int 2012; 109(50): 878–84.

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Conflict of interest statement
The author has received honoraria for speaking from the Rosa Luxemburg Foundation. He sits on the board of MEZIS e.V. ("Mein Essen zahl ich selbst [I pay for my own meals]").

Addenda

I very much welcome the intention and the subject matter of the article by Velasco et al. However, several important issues were not mentioned. In uncomplicated urinary tract infections, resistance rates above 20% may be acceptable if other problems can be avoided.

Trimethoprim is as effective as co-trimoxazole but has far fewer side effects, especially allergy rates. Co-trimoxazole is therefore obsolete for this indication. The product information states that fosfomycin needs to be taken in a precise manner: no food intake two hours before ingestion and one hour afterwards, otherwise the effect may be lost even in susceptible pathogens. Most colleagues are not aware of this and stop using fosfomycin after disappointment with the treatment result.

Nitrofurantoin is licensed in Germany only in cases where alternatives cannot be used or are ineffective.

Most of these points are listed in the guideline published by the German College for General Practitioners and Family Physicians (*Deutsche Gesellschaft für Allgemein- und Familienmedizin*, DEGAM), "Burning Sensation When Passing Water". The authors of the article have obviously completely ignored this guideline. It is a shame that in conducting the study and preparing the publication, primary care physicians were not included.

DOI: 10.3238/arztebl.2013.0327b

REFERENCES

1. Schmiemann G, Gebhardt M, Matejczyk M, Hummers-Pradier E: Deutsche Gesellschaft für Allgemeinmedizin und Familienmedizin: Leitlinie Nr 1; Brennen beim Wasserlassen – Update 2009; http://leitlinien.degam.de/index.php?id=73.
2. Velasco E, Noll I, Espelage W, Ziegelmann A, Krause G, Eckmanns T: A survey of outpatient antibiotic prescribing for cystitis. Dtsch Arztebl Int 2012; 109(50): 878–84.

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Conflict of interest statement
The author declares that no conflict of interest exists.

Methodological Flaws

The validity of the study reported by Velasco et al (1) is gravely hampered by methodological shortcomings.

The representativeness of the sample ("physicians providing outpatient care who gave uncomplicated UTI/cystitis as their most common diagnosis") seems to be questionable, since prescribing statistics show that respiratory tract infections are by far the most common cause for antibiotic prescriptions.

Jointly evaluating the responses from general practitioners and specialists does not make sense since the healthcare setting has a crucial influence on illness severity and treatment. Urologists care for patients with complicated urinary tract infections or infactions caused by problematic pathogens. Therefore urologists

require a treatment that differs from the uncomplicated urinary tract infections that are typically dealt with in general practice.

The mono-substance trimethoprim (recommended in the evidence based guideline "Burning Sensation When Passing Water", by the German College for General Practitioners and Family Physicians [DEGAM]) does not seem to have been mentioned (in response to an open question) by any of the participants. Were the results (2) for trimethoprim (TMP) and trimethoprim-sulfamethoxazole (TMP-SMX) combined? On the basis of recent study results (3) we think that TMP is still the antibiotic of choice. In any case, co-trimoxazole should not be suggested as a suitable alternative.

Current guidelines (DEGAM, AWMF [*Arbeitsgemeinschaft der Wissenschaftlichen Medizinischen Fachgesellschaften*, Association of Scientific Medical Societies in Germany]) advise against identifying the pathogen in uncomplicated urinary tract infections. Resistance data, such as the cited German Antibiotic Resistance Surveillance System (ARS) can therefore not offer any insights into the resistance spectrum of uncomplicated infections.

A current comparison with unselected data from primary care (4) shows clear differences to the results from the ARS.

In conclusion, we recommend an analysis of the results presented in the current study for each healthcare setting, respectively.

DOI: 10.3238/arztebl.2013.0327c

REFERENCES

1. Velasco E, Noll I, Espelage W, Ziegelmann A, Krause G, Eckmanns T: A survey of outpatient antibiotic prescribing for cystitis. Dtsch Arztebl Int 2012; 109(50): 878–84.
2. Schmiemann G, Gebhardt K, Matejczyk M, Hummers-Pradier E: Brennen beim Wasserlassen – Anwenderversion der S3 Leitlinie Harnwegsinfekte. Düsseldorf: Omicron publishing; 2009.
3. Kuehlein T, Goetz K, Laux G, Gutscher A, Joos S: Antibiotics in urinary-tract infections. Sustained change in prescribing habits by practice test and self-reflection: a mixed methods before-after study. BMJ Qual Saf 2011; doi: 10.1136/bmjqs.2010.047357.
4. Schmiemann G, Gágyor I, Hummers-Pradier E, Bleidorn J: Resistance profiles of urinary tract infections in general practice – an observational study. BMC Urology 2012; 12: 33. doi: 10.1186/1471–2490–12–33.

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Conflict of interest statement
Dr Schmiemann and Professor Hummers-Pradier are the authors of the DEGAM guideline "Burning Sensation When Passing Water" and were involved on behalf of the DEGAM in the S3 guideline on urinary tract infections.
The other authors declare that no conflict of interest exists.

In Reply:

Schmiemann and colleagues see important methodological flaws in some aspects of our article (1). We can dispel some of their fears on some points, but for others we could not proceed any differently because of the study design. Baum mentions similar issues. We still think our study is valid.

The representativeness of the sample has been extensively proven (2). We provided a comparative overview of different guidelines. During the study period (2008), representatives from DEGAM were working on the completion of the newest S3 guideline; for this reason the guideline was not included in the overview. As the editorial introducing our article mentioned, our sampling period occurred about two years before the current publication of the S3 guideline on the treatment of uncomplicated urinary tract infections. In regions with resistance rates of below 20% for trimethoprim/co-trimoxazole in E coli, trimethoprim/co-trimoxazole is still the antibiotic of choice (3). The selected antibiotic was entered as free text in our survey. Trimethoprim alone was mentioned only 39 times (0.01%), co-trimoxazole (combination of sulfonamides and trimethoprim) were mentioned 554 times (7%); we combined the results for this reason.

It is known that antibiotic resistance surveillance systems overestimate resistance rates in the outpatient setting. Studies such as the one by Schmiemann are therefore particularly important.

Lindner focuses on the possible influence of sample distribution to doctors by industry representatives. Possible factors of influence from the pharmaceutical industry, such as providing samples, are an important topic. This was discussed in depth during the focus groups preceding our survey (4). Possible influences from the pharmaceutical industry were discussed in our study. These factors did not, however, affect the prescribing of antibiotics in urinary tract infections.

DOI: 10.3238/arztebl.2013.0328

REFERENCES

1. Velasco E, Noll I, Espelage W, Ziegelmann A, Krause G, Eckmanns T: A survey of outpatient antibiotic prescribing for cystitis. Dtsch Arztebl Int 2012; 109(50): 878–84.
2. Velasco E, Espelage W, Faber M, Noll I, Ziegelmann A, Krause G, Eckmanns T: A national cross-sectional study on socio-behavioural factors that influence physicians' decisions to begin antimicrobial therapy. Infection 2011; 39: 289–97.
3. Velasco E, Ziegelmann A, Eckmanns T, Krause G: Eliciting views on antibiotic prescribing and resistance among hospital and outpatient care physicians in Berlin, Germany: results of a qualitative study. BMJ Open 2012; 2: e000398.
4. Wagenlehner FME, Hoyme U, Kaase M, et al.: Clinical practice guideline: uncomplicated urinary tract infections. Dtsch Arztebl Int 2011; 108(24): 415–23.

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Conflict of interest statement
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