

The dynamic role of the antibiotic pharmacist

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Antibiotics are unique among medicines by virtue of the fact that their use in an individual patient can directly impact on the health and well being of other patients, as well as society as a whole.

Optimal use of antimicrobials is essential in the face of escalating antibiotic resistance, and requires cooperation from all sectors of the health care system. Antibiotics are used in most hospital specialities and approximately 20-25% of patients take antibiotics at any one time during a hospitalisation period. This varies from 40-50% in ITU's to 10% in ENT.¹

The Role of the Antibiotic Pharmacist

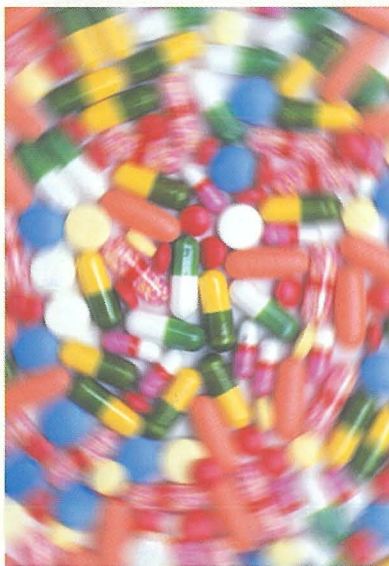
The Antibiotic Pharmacist plays a vital role in developing, implementing and monitoring initiatives to promote prudent antibiotic use in the hospital. In Malta, the Antibiotic Pharmacist is part of the Antibiotic Team (ABT). The other members are the Hospital Infection Control Consultant, Infectious Disease Consultant and Consultant Microbiologist. The ABT issued prescribing guidelines in 2004 and the Antibiotic Pharmacist monitors antibiotic prescriptions at the 'General Dependency Ward' (GDW) and also monitors prescriptions for restricted, non-formulary, antibiotics. The Clinical Pharmacists, occasionally, also refer to the Antibiotic Pharmacist for advice.

The daily duties of the Antibiotic Pharmacist include providing advice on management of specific patients, monitoring and auditing antimicrobial use and promoting compliance to established guidelines.

In the UK, unlike in Malta, the Antibiotic Pharmacist, is also involved in:

- Promoting IV to Oral switch;
- Antibiotic Stop Order Policy;
- Therapeutic Substitution;
- Attending ward rounds with the Infectious Disease team;
- Outpatient parenteral antimicrobial therapy (OPAT);
- Streamlining to narrow spectrum agents according to culture and sensitivity results on a daily basis.

The role of the Antibiotic Pharmacist at St. Luke's Hospital was the subject of various poster presentations at International Conferences.^{2,3}



Monitoring Consumption / International Collaboration

Malta participates in two EU funded projects which deal with Surveillance of Antibiotic Consumption namely European Surveillance of Antimicrobial Consumption (ESAC) which deals exclusively with consumption both in the hospital and ambulatory setting in Europe and the ARMed which deals with other related issues in Infection Control, Resistance and Consumption in the hospital setting.

The ARMed is coordinated locally and the Antibiotic Pharmacist, acting as research assistant, deals with the management of antibiotic consumption data submitted by the participating hospitals from Mediterranean countries (Cyprus, Egypt, Jordan, Tunisia and Turkey). There are also Algeria, Morocco and Lebanon which participate in other parts of the ARMed project.

Another European project to which the Infection Control Team, including the Antibiotic Pharmacist, actively participated is ARPAC (Antimicrobial Resistance Prevention and Control).

Both ESAC, ARMed and ARPAC are projects funded by the EU.

A perspective on the Community

Although antibiotic-restriction policies in the hospital setting are important in altering microbial susceptibility patterns,

an overall reduction in antibiotic prescriptions in the outpatient setting is more likely to significantly impact antibiotic resistance. Patients must change their perception of the need for these drugs. With cooperation of healthcare teams, the effectiveness of available antibiotics may be sustained and the threat of resistance minimised. However, in Malta, we have no real estimates of the actual antimicrobial consumption in Ambulatory Care. In fact, our participation in the ESAC is only for the Hospital Care part. On the other hand some other countries, like the UK, only participate in the AC part since they lack reliable hospital consumption data.

Conclusion

The role of the Antibiotic Pharmacist is a difficult, dynamic and challenging one, but undeniably rewarding. Work can be extremely satisfying from a professional and personal perspective. The Antibiotic Pharmacist can make a significant contribution to patient care as an integral part of multidisciplinary infection control teams. □

References

1. Standing Medical Advisory Committee Subgroup on Antimicrobial Resistance. The Path of Least Resistance. London: Department of Health; 1998.
2. Zarb P, Vella Bonnanno P. (Poster Presentation) 'The role of a designated clinical pharmacist to promote rational antibiotic prescribing'. 2nd Spring Conference of the European Society of Clinical Pharmacists: Malta: May 2001.
3. Zarb P. (Poster Presentation) 'Roles and Impact of the Antibiotic Pharmacist in St Luke's Hospital'. 5th IFIC Congress: Croatia: October 2004.

Bibliography

Dickerson LM, Mainous AG, Carek PJ. The pharmacist's role in promoting optimal antimicrobial use. *Pharmacotherapy* 2000; 20(6):711-23.

Weller TMA, Jamieson CE. The expanding role of the antibiotic pharmacist. *Antimicrob Chemother* 2004; 54:295-8.

Hand K, Lawson W. A career as... Specialist Microbiology Pharmacist. *Hospital Pharmacist* 2004; 11:459-464.

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