Community pharmacy must continue to embrace its scientific heritage

Science has been the bedrock of the pharmacy profession and will continue to remain important into the future. Gillian Hawksworth provides examples of the importance of science and explains the role of local practice forums in research.

As a profession, we need to embrace the idea that the science of pharmacy and the practice of pharmacy are inextricably linked in all sectors of work and should not be viewed as two separate subjects.

As a community pharmacist I believe myself to be a “science partner” of the Royal Pharmaceutical Society along with other more obvious science partners, such as those who work in the pharmaceutical industry, in schools of pharmacy and in regulatory affairs.

The role science plays in community pharmacy was recently recognised by the appointment of two community pharmacists to the Society’s newly instigated expert advisory panel for pharmaceutical science. This is no surprise: community pharmacists have a broad-based science degree that gives a foundation of knowledge and skills that will be fundamental to practice, however pharmacy develops in the future.

Community pharmacy practice is all about the application of science and it should be remembered that community pharmacists are the only scientists members of the public meet on a regular basis.

A wide array of common activities in our community pharmacies may not at first glance be thought of as the application of the scientific knowledge and understanding we gained during our undergraduate training. But there are plenty of examples (see Panel).

How can local practice forums help?

Research and science must play an important part of the work of the newly emerging local practice forums. We should aim to provide research support for pharmacy practitioners to enable them to develop research and science networks. Further developments could include linking several LPFs across regional areas, getting involved with local clinical research networks and local science networks (possibly around schools of pharmacy), and linking with existing national science networks that include pharmaceutical scientists who are not pharmacists.

Locally based research and science work streams with support from the Society can help promote science in pharmacy, disseminate relevant information, and facilitate research. Research collaboration could, for example, take the form of the statistical analysis of prevent hospital admissions data resulting from community pharmacist clinical interventions on prescriptions. Interventions in the pharmacological care of the elderly may involve changes in drug pharmacokinetics that could affect the distribution, metabolism, excretion and, thereby, the response to cardiovascular drugs.

So how can we put scientific educational theory into practice for patients in the future?

Intraprofessional working is one way forward, as represented by my colleague Rachel Airley, a lecturer at the University of Huddersfield, a pharmaceutical scientist with an expertise in biomarkers that may be applied to cancer pharmacogenomics, and a locum community pharmacist. She believes community pharmacists could be the first point of contact for treatment failure and adverse drug reactions that have a pharmacogenetic basis, requiring referral to a pharmacist-led pharmacogenetic clinic, such as for ethnic groups or the elderly.

Other potential developments could include targeted agents and immunologicals, for which there could be liaison and referral to the community pharmacist from oral chemotherapy clinics. Patients in clinical trials could seek advice from community pharmacists about ADRs from a clinical trial drug. Pharmacists may have a role in service support or local protocol design to reduce clinical trial attrition rates, for example by recommending appropriate “as required” medication for predictable ADRs.

These examples show how our profession has a science partner in the Royal Pharmaceutical Society. Science must certainly be a part of what the profession becomes in the future. It reconnects us to our roots and gives our profession a universal sense of purpose. More importantly, our scientific entrepreneurial skills could make a real difference in better patient outcomes and a renewed focus on public health.

The author

Gillian Hawksworth, PhD, FRPharmS, is a senior lecturer at the University of Huddersfield and is a former president of the Royal Pharmaceutical Society.