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Out-of-hours oral antibiotic prescribing through the community pharmacy independent prescribing service in Wales: a secondary data analysis study

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Abstract

Since 2007, pharmacists in Wales have been able to train and practice as Pharmacist Independent Prescribers. The Pharmacy Independent Prescribing Service (PIPS) was piloted in 2020 and later integrated into the community pharmacy contract in 2022. The PIPS specification includes several conditions, many of which require oral antibiotic treatment. Anecdotal evidence suggests that out-of-hours (OOH) services (weekdays 6:30PM–8:00AM, weekends, and holidays) contribute considerably to antibiotic prescribing. However, research on this in Wales' PIPS is lacking. The study aimed to analyse oral antibiotic prescribing during the OOHs PIPS. Data on All-Wales PIPS consultations were obtained from a national pharmacy database (June 2020–September 2022) and descriptively analysed, focusing on those involving oral antibiotics during OOHs. Prescriptions/consultations lacking explicit diagnoses were categorised using NICE Clinical Knowledge Summaries. Given their *Clostridium difficile* risk, 4Cs appropriateness (amoxicillin-clavulanate, cephalosporins, clindamycin, and fluoroquinolones) was assessed using local guidelines. Of 30,401 consultations, 1961 were during OOHs; 772 resulted in 773 oral antibiotics prescribed. Most OOH consultations involved females (n=575; 74.48%); mean age: 44 years. Most OOH patients self-referred to the service (n=646; 83.68%); over half (n=409; 52.98%) reported making GP appointments if the service was unavailable. Urinary tract infections were the most treated conditions (n=327; 42.31%). Nitrofurantoin was the most prescribed (n=243; 31.40%). OOH prescribing of 4Cs was low (n=14; 1.81%) and generally guideline-based. A small proportion of OOH conditions managed with oral antibiotics were outside the PIPS specification. The study provides insights into how community pharmacists contribute to OOH service delivery and patient care.