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**Antimicrobial Stewardship in Community Pharmacy**

**Non-Pharmacist version**

This study is led by the University of Strathclyde in collaboration with Health Improvement Scotland and is funded by NHS Education for Scotland. The purpose of this questionnaire is to explore awareness, attitudes, and behaviours of pharmacy support staff (e.g., dispenser, technician, medicine counter assistants) regarding antimicrobial stewardship and their engagement with the public to raise awareness of antimicrobial resistance and the appropriate use of antimicrobials.

For the purpose of this questionnaire, antimicrobial stewardship means an approach to ensure antimicrobial (a term used to describe medicine that inhibits the growth of microorganisms like bacteria, viruses, or fungi) is prescribed and used according to the recommended guidelines, this includes the choice of antimicrobial, the dose and the duration.

The results from this questionnaire will be used to inform future training and support for community pharmacy personnel in Scotland. (This questionnaire was developed prior to COVID-19 **and does not focus upon COVID-19**).

The questionnaire takes up to 15 minutes to complete. If you work in more than one pharmacy, please answer based on the pharmacy to which the questionnaire was sent and not any of the other pharmacies in which you work.

The information that you provide will be held in the strictest confidence and will be anonymised in publications and presentations that arise from this work.

This study has received ethical approval from the Strathclyde Institute of Pharmacy and Biomedical Sciences, University of Strathclyde.

**If you choose to complete this questionnaire, this activity can contribute to your Continuing Professional Development portfolio if this is applicable to your role.**

If you have any questions or comments, please contact the research team at the University of Strathclyde.

**Contact details of the research team:**

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**Do you consider yourself one of the pharmacy team?**

**(i.e., dispenser, technician, medicine counter assistants)**

* **Yes (Move to the consent section)**
* **No (Move to next block)**

**You have indicated that you are not one of the pharmacy team, therefore you are not eligible to complete the survey. The research team thank you for your interest.**

**End the survey**

**If you are happy to participate, please sign the consent below:**

|  |  |
| --- | --- |
| I confirm that I have read the participant information sheet and fully understand the information provided |  |
| I confirm that I have the opportunity to ask questions if needed by contacting the research team |  |
| I understand that my participation in this study is voluntary and that I am free to withdraw at any time without giving reasons |  |
| I understand that the data obtained from the questionnaire will be anonymised |  |
| I understand that the results may be published in a peer reviewed journal and that the results will be reported to the funding body and other relevant organisations |  |
| I agree to take part in the questionnaire |  |

**Please print your name:**

**Date:**

**Knowledge of Antimicrobial Stewardship and Antimicrobial Resistance**

The following section explores general concepts of antimicrobial stewardship practice including antimicrobial resistance and the use of antimicrobials.

Please indicate your agreement or disagreement with each statement.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Strongly agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
| Antimicrobial resistance is a serious problem in Scotland |  |  |  |  |  |
| Not completing the full course of prescribed antimicrobial treatment may cause bacteria to develop antimicrobial resistance |  |  |  |  |  |
| The overuse of antimicrobials in humans leads to antimicrobial resistance |  |  |  |  |  |
| The lack of new antimicrobial medicine is a serious problem |  |  |  |  |  |
| The increased uptake of the flu vaccine will mean there is less need to prescribe antimicrobial medicines as patients will have less infections |  |  |  |  |  |
| Prescribing antimicrobial medicines when they are not needed will mean that they may not be effective when they are needed |  |  |  |  |  |

**Antimicrobial Stewardship Strategies**

Please state your agreement or disagreement regarding which of the following strategies are appropriate for community pharmacy teams (i.e., pharmacists or pharmacy support staff) to reduce antimicrobial resistance.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **As a member of my community pharmacy team, I should ..** | Strongly agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
| ..provide advice to patients on how to manage their self-limiting illnesses where an antimicrobial medicine is not required |  |  |  |  |  |
| ..promote hand hygiene |  |  |  |  |  |
| ..provide verbal or written information to patients/customers about antimicrobial resistance |  |  |  |  |  |

**Are you involved in the dispensing of prescriptions or handing out prescription medicines?**

* Yes (Move to the next question)
* No (Move to Antimicrobial Stewardship Activities section)

**Antimicrobial Stewardship Practice**

The following section explores types of antimicrobial stewardship practice when dealing with incoming prescriptions. For each of the following statements, please state the frequency with which you undertake any of the following activities.

1. **When dispensing an antimicrobial prescription, I…**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Always** | **Very often** | **Sometimes** | **Rarely** | **Never** |
| … involve the pharmacist if the patient is allergic to the prescribed antimicrobial |  |  |  |  |  |
| … involve the pharmacist if the antimicrobial dose/frequency does not comply with the BNF recommendations |  |  |  |  |  |

1. **When handing over ANY antimicrobial prescription, I advise the patient about ...**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Always** | **Very often** | **Sometimes** | **Rarely** | **Never** |
| .. the importance of completing the full course to avoid antimicrobial resistance |  |  |  |  |  |
| .. possible side effects |  |  |  |  |  |
| .. what should be done if they experience a side effect with their antimicrobial treatment |  |  |  |  |  |
| .. action to take if symptoms do not resolve with antimicrobial treatment |  |  |  |  |  |
| …the NHS Scotland Pharmacy First Service which covers the provision of advice with treatment/referral as required |  |  |  |  |  |
| ..a pharmacist consultation if symptoms are suggestive of a bacterial infection |  |  |  |  |  |

**Antimicrobial Stewardship Activities**

The following statements are a list of possible activities related to antimicrobial stewardship. Please state how often you perform each of the following activities.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **How often do you.....** | Always | Very often | Sometimes | Rarely | Never |
| Recommend flu vaccination to people at high risk of flu complications |  |  |  |  |  |
| Provide patient advice and counselling on infection-related topics e.g., hand hygiene, appropriate use of antimicrobials |  |  |  |  |  |

**Further Support with Antimicrobial Stewardship**

Which of the following factors would help you to provide information on antimicrobial stewardship in your community pharmacy?

Please state your agreement or disagreement with the following statements.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Strongly agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
| Having appropriate information on antimicrobial stewardship for community pharmacy teams |  |  |  |  |  |
| Having clarification of the recommended role of the pharmacy team regarding antimicrobial stewardship |  |  |  |  |  |
| Public awareness campaigns that highlight the role of community pharmacy in antimicrobial stewardship |  |  |  |  |  |

**Engagement with Antimicrobial Stewardship Activities**

1. Previous research has identified a range of factors that influence engagement with antimicrobial stewardship activities in community pharmacies.

Please state your agreement or disagreement with the following statements.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Strongly agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
| I have sufficient knowledge and understanding of antimicrobial stewardship |  |  |  |  |  |
| I require more training to fully participate in antimicrobial stewardship |  |  |  |  |  |
| With the allocation of appropriate protected learning and funded time, I could complete training and participate in all aspects of antimicrobial stewardship. |  |  |  |  |  |
| I have been trained to provide advice on management of: | | | | | |
| * upper respiratory tract infections |  |  |  |  |  |
| * urinary tract infections |  |  |  |  |  |
| * soft and skin tissue infections |  |  |  |  |  |
| * eye infections |  |  |  |  |  |

1. The following statements explore your engagement with antimicrobial stewardship. Please state to what extent you agree or disagree.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **As a member of pharmacy support staff, I..** | Strongly agree | Agree | Neither Agree nor Disagree | Disagree | Strongly Disagree |
| ..currently contribute to antimicrobial stewardship |  |  |  |  |  |
| ..am confident in my ability to contribute to antimicrobial stewardship |  |  |  |  |  |
| ..have a responsibility to take a prominent role in antimicrobial stewardship and infection prevention |  |  |  |  |  |
| ..believe the pharmacy support staff in this pharmacy can support antimicrobial stewardship and infection prevention |  |  |  |  |  |
| ..have job satisfaction when I engage with patients about managing infection and appropriate general use of antimicrobials |  |  |  |  |  |
| ..feel confident about assessing patients’ clinical signs and symptoms associated with self-limiting infections to provide advice on whether self-care or referral is the best option |  |  |  |  |  |

**Scenarios**

**The following scenarios reflect commonly occurring situations that arise in community pharmacies.**

Scenario 1

A mother comes to the pharmacy to consult with you about her 4-year-old child who had an eye infection for three days, which of the following action(s) do you take (please indicate all that apply):

1. Speak with the mother and give self-care advice about her child’s condition
2. Recommend chloramphenicol 0.5% eye drops for 5 days
3. Refer to the pharmacist
4. Refer to an optician
5. Refer to a GP
6. Other (please specify)

Scenario 2

A 35-year-old women has visited the pharmacy complaining about dysuria, urgency, and frequency of urination for the last five days. She had no abdominal pain and no blood in the urine. Which of the following action(s) do you take (please indicate all that apply)?

1. Speak with the patient and give self-care advice
2. Refer the patient to the pharmacist
3. Refer the patient to a GP
4. Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_\_

**Education and Training about Antimicrobial Stewardship**

**Have you received any previous education and training regarding antimicrobial stewardship and/or antimicrobial resistance?**

1. Yes
2. No

**Would you be interested in undertaking education and training about antimicrobial stewardship and/or antimicrobial resistance?**

1. Yes (take them to Q which asks them to specify topics for which they would want training and list some options)
2. No (needs to be directed beyond next question)

**What is your preferred format for training events related to antimicrobial stewardship?** (More than one choice) Please be aware that time would be made available for this activity.

1. Direct face-to-face learning events
2. Distance learning/online courses
3. Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_\_

**Information about you and your pharmacy**

The following section includes questions about you as a pharmacist and your place of work. If you work in more than one pharmacy**, please answer based on the pharmacy to which this questionnaire was sent and not any of the other pharmacies in which you work.**

**How would you describe your gender identity?**

1. Man
2. Woman
3. In another way
4. Prefer not to say
5. Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_\_

**Are you an Antibiotic Guardian?**

1. Yes
2. No

**For how many years have you worked in community pharmacy? \_\_\_**

**How many hours per week do you work in community pharmacy? \_ \_ hours**

**What is the highest qualification you have completed?**

1. SVQ2 Pharmacy Services at SCQF Level 5
2. SVQ3 Pharmacy Services at SCQF Level 6
3. Diploma Pharmacy Services SCQF Level 7
4. SVQ Pharmacy Services SCQF Level 8
5. Other (please specify)

**In which NHS Health Board do you primarily work?**

|  |  |
| --- | --- |
| 1. Ayrshire and Arran | 1. Greater Glasgow and Clyde |
| 1. Borders | 1. Highland |
| 1. Dumfries and Galloway | 1. Lanarkshire |
| 1. Western Isles | 1. Lothian |
| 1. Fife | 1. Orkney |
| 1. Forth Valley | 1. Shetland |
| 1. Grampian | 1. Tayside |

**What is your role in this pharmacy (tick one only)?**

1. Dispenser
2. Pharmacy Technician
3. Medicine counter assistant
4. Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_\_

**Select what best describes this pharmacy (please tick one only)**

1. Independent, single pharmacy
2. Independent, 2-5 pharmacies
3. Independent, 6+ pharmacies
4. Company Chemist /Large chain e.g., Boots, Lloyds, Rowlands, Well, Superdrug, ASDA, Morrisons, Tesco.
5. Other, please specify \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Is there is a consultation room/area available for use in this pharmacy?**

1. Yes
2. No

If you have any comments on the topics addressed by this questionnaire, please write them here. These comments could include any specific types of training you would prefer and/or any resources that you have useful on the topics addressed by this questionnaire, or any other relevant information.

|  |
| --- |
|  |

**Would you be interested in being involved with any future research initiatives in relation to antimicrobial stewardship in community pharmacy?**

1. Yes
2. No

**Do you want to be entered into the prize draw for £40 Amazon voucher?**

1. Yes
2. No

**Email address:**

(This will only be asked if participants answered **Yes** to at least one of the previous two questions)

**Thank you for your time to participate in this questionnaire, your input is invaluable, and it will be used to shape future initiatives. You will be sent information regarding antimicrobial stewardship after the survey period has ended.**