

PGEU GPUE

The Pharmaceutical Group of the European Union (PGEU) is the association representing community pharmacists in 32 European countries. In Europe over 400.000 community pharmacists provide services throughout a network of more than 160.000 pharmacies, to an estimated 46 million European citizens daily.

PGEU's objective is to promote the role of pharmacists as key players in healthcare systems throughout Europe and to ensure that the views of the pharmacy profession are taken into account in the EU decision-making process

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Executive Summary

Community pharmacists are excellently positioned within European primary care communities to provide information, advice, referral, treatment and preventative actions to reduce the burden of communicable and vaccine-preventable diseases. As part of their wider public health mission, community pharmacists and pharmacy organisations are also involved in public awareness campaigns on topics such as antimicrobial resistance and vaccine hesitancy. In addition to their core range of services and activities, community pharmacists across Europe are increasingly providing new and innovative services to complement wider efforts within health services to reduce the transmission of communicable diseases, improve effectiveness of treatment and increase vaccination coverage of the population.

This Best Practice Paper highlights a number of innovative services and activities which are provided by community pharmacists across Europe in response to the threat posed by communicable diseases and vaccine hesitancy. It also highlights potential future and emerging pharmacy services which could strengthen the resilience of European health systems in the area of communicable diseases and vaccine hesitancy.

As such, PGEU makes a number of recommendations to EU Institutions, Member States and the wider public in order to maximise the contribution community pharmacists make to tackling communicable diseases and improving vaccination coverage:

- 1. European institutions and agencies are encouraged to continue and strengthen collaboration with community pharmacists and pharmacy organisations at European level, for example in the Joint Actions on Antimicrobial Resistance and Vaccination;
- 2. National governments are called-upon to include and integrate community pharmacists into national vaccination strategies;
- 3. Pharmacists should be enabled to provide new and innovative services in response to the threat posed by communicable diseases and vaccine hesitancy;
- 4. Pharmacists should be better integrated into primary healthcare systems and services, for example, integration of electronic health records to facilitate efficient notification of pharmacists' interventions to the patient's medical record;
- 5. Services, such as vaccinations should be globally commissioned within national health systems;
- 6. Pharmacists should be encouraged to vaccinate themselves against influenza.



Glossary

AIDS	Acquired Immuno-deficiency Syndrome
AMR	Antimicrobial resistance
APB	Belgian Pharmaceutical Association
CPD	Continuous Professional Development
CPME	Standing Committee of European Doctors
DOT	Directly Observed Therapy
EAAD	European Antibiotic Awareness Day
EC	European Commission
ECDC	European Centre for Disease Prevention & Control
eHRs	Electronic Health Records
EMA	European Medicines Agency
ESWI	European Scientific Working Group on Influenza
EU	European Union
EU-JAMRAI	European Union Joint Action on Antimicrobial Resistance
EU-JAV	European Union Joint Action on Vaccination
'Flu	Seasonal influenza virus

НСР	Healthcare Professional
Нер В	Hepatitis B
Нер С	Hepatitis C
HIV	Human Immuno-deficiency Virus
HPV	Human Papilloma Virus
JA	Joint Action (EU funded, Member State-led project)
OECD	Organisation for Economic Cooperation and Development
OTC	Over the counter
PEP	Post-exposure prophylaxis
PGEU	Pharmaceutical Group of the European Union
RDT	Rapid Diagnostic Test
TAC	Technical Advisory Committee (of the ECDC)
ТВ	Tuberculosis
WAAW	World Antibiotics Awareness Week
WHO	World Health Organisation

1. Communicable Diseases, Vaccination & Policy Responses

Background

Prevalence of Communicable Diseases

In recent years, there has been a significant focus on tackling the burden of chronic diseases in Europe – and justifiably so, especially considering the impact such diseases have on population health, Europe's economy and the resilience of Europe's health systems. However, at the same time there has also been a resurgence in certain communicable and preventable diseases, such as tuberculosis (TB - particularly in HIV positive patients 1,2) and outbreaks of measles 3 . The threat from the seasonal influenza virus of up to 70.000 deaths in Europe a year 4 and a broader failure of antimicrobial treatments as a result of antimicrobial resistance (AMR) 5 are evermore present. Additionally, with the recent rise in migration and movement of people between countries and continents, threats from beyond Europe's boarders such as Ebola 6 and Zika 7 have also posed a threat.

Innovation in Treatment Options

In addition to a dramatic increase in spending to manage chronic non-communicable diseases in European health systems, there have also been recent advances in innovative therapies for some infectious diseases, with associated increases in costs. Recent analyses from the European Commission, Organisation for Economic Cooperation and Development (OECD) and WHO Europe Observatory⁸ have called

for increased focus and spending on preventative interventions in health and as such, European health system payers are re-evaluating their spending priorities in-line with recommendations to allocate more funding to preventative strategies.

Health Literacy and Vaccine Hesitancy

The burden of communicable diseases is further confounded by a drop in coverage for vaccine-preventable diseases as a result of low health literacy and vaccine hesitancy. The need for effective coverage of the population to prevent regular outbreaks ('herd immunity') and patient autonomy, choice and empowerment is a delicate balance to strike and some recent policies (such as mandatory vaccination schedules in some Member States) have increased vaccine hesitancy in some parts of the population⁹. Coverage in the media has also contributed to mixed messages concerning the safety of vaccinations¹⁰ and as such, a concerted effort from all stakeholders is required in order to ensure that balanced, evidence-based and unbiased information is provided to European citizens on the benefits and risks of being vaccinated.

EU Action and Cooperation

Communicable diseases cross European borders - both from within the EU but also to and from the rest of the globe. As such, certain actions at EU (and global) level are warranted in order to address the cross-border nature of communicable diseases whilst respecting the principle of subsidiarity for Member States to organise the functioning of their health systems.

¹ TB accounts for over 40% of mortality for all communicable diseases and is the most common cause of death for HIV+/AIDS patients. WHO Europe, 2012. Leading causes of death in Europe: fact sheet.

² ECDC, 2017. Communicable Disease Threats Report: CDTR, Week 12, 19-25th March.

³ WHO Europe, 2017. Measles continues to spread and take lives in Europe. Press release 11 Jul 2017

⁴ ECDC, 2018. Factsheet about seasonal influenza

⁵ O'Neill J., 2016. Tackling drug-resistant infections globally: Final report and recommendations.

⁶ WHO Europe, 2014. Ebola outbreak in West Africa and the risk to Europe.

⁷ ECDC, 2017. Current Zika transmission worldwide.

⁸ EC, 2017. State of Health in the EU Companion Report 2017.

Finnegan G, 2017. Mandatory vaccination in Europe: Does it work? VaccinesToday.

Wright JA, Polack C. Understanding variation in measles-mumps-rubella immunization coverage—a population-based study, European Journal of Public Health, Volume 16, Issue 2, 1 April 2006, Pages 137–142



European Commission State of Union 2017 Speech

Following several successive EU policies concerning communicable and vaccine-preventable diseases^{11,12,13,14}, the State of the Union 2017 Speech by the European Commission President, Jean-Claude Junker¹⁵, featured a specific reference to the importance of vaccinations, reducing vaccine hesitancy and the provision of vaccination in Europe. This is significant, as in recent years health-related topics have struggled to make it into similar high-level discourses and in this case, vaccination featured as the only reference to health in the entire speech. It stated the following:

We also need to protect our citizens better and to help do so we will present a Joint Action Plan on national vaccination policies. This will support Member States in implementing vaccination programmes, reducing vaccine hesitancy, and strengthening the supply of vaccines.

European Commission Action on Communicable Diseases and Vaccination

As part of the broader response to the threats and policies highlighted above, the European Commission recently initiated several actions to address the issue of communicable diseases and vaccine hesitancy 16,17,18 and to strengthen cooperation against vaccine-preventable diseases. Additionally, in 2017 the European Commission also announced that a Joint Action on Vaccination (EU-JAV) will begin in $2018.^{19}\,$

- 11 2009 Council recommendations on seasonal influenza vaccination.
- 12 2011 Council conclusions on childhood immunisation: successes and challenges of European childhood immunisation and the way forward
- 13 EC Staff working document 2014 on State of play on implementation of the Council Recommendation of 22 December 2009 on seasonal influenza vaccination (2009/1019/EU).
- 14 2014 Council conclusions on vaccinations as an effective tool in public health.
- 15 EC Work Programme 2018.
- 16 EC Workshop Seeking new partnerships for EU action on vaccination. Brussels, 31 May 2017.
- 17 EC Open Public Consultation on "Strengthened cooperation against vaccine-preventable diseases".
- 18 EC Roadmap Strengthened cooperation against vaccine-preventable diseases
- 19 EC DG SANTE, 2018. Vaccination. Web page.

Community Pharmacists' Contribution at European and National Level

At European level, PGEU has participated in the European Centre for Disease Prevention and Control's (ECDC) European Antibiotic Awareness Day (EAAD) campaign since inception, promoting the prudent use of antimicrobials and has also engaged with the WHO's World Antibiotic Awareness Week (WAAW) each year. Moreover, PGEU has engaged with European Commission consultations and workshops and the recently established Joint Action on AMR (EU-JAMRAI). Furthermore, PGEU contributed to the drafting of EU guidelines on prudent use of antimicrobials in humans and is an active member of the European Scientific Working Group on Influenza (ESWI).

At national level, community pharmacists engage in a number of activities and provide a range of services to address communicable diseases and increase vaccination coverage such as: participation in public awareness campaigns; screening and sign-posting in the pharmacy; advocacy on availability and benefits of vaccination; and ensuring pharmacists themselves are vaccinated. Additionally, community pharmacists can provide a range of testing and management services for communicable diseases, vaccination in the pharmacy, support for travelling patients, needle and syringe exchange and harm reduction interventions.

As such, this paper has been drawn-up to provide a summary of best practices from community pharmacists' interventions in the area of communicable disease and in particular, vaccination hesitancy, to address the following objectives:

- 1. Raise awareness of, and promote community pharmacy best practices on services and activities addressing communicable and vaccine-preventable diseases;
- 2. Inform relevant policies and actions at both EU and national levels of the added value community pharmacists can offer in tackling communicable and vaccine-preventable diseases as part of the primary care team.



2. Action on Communicable Diseases and Vaccination at European Level

PGEU has engaged in EU policies related to prevention, self-care, communicable diseases, AMR and promoted exchange of best practices among its members in these areas for many years.

ECDC and European Antibiotics Awareness Day



In a recent Eurobarometer survey, an average of 46% of respondents incorrectly answered that antibiotics kill viruses, and just over half of respondents correctly answered that antibiotics are not effective against colds and seasonal influenza ('flu).²⁰ Whilst an uncomplicated viral infection is not pleasant for the patient, it will not be successfully treated with an antibiotic. There is a clear need therefore to improve citizens'

knowledge on the rational use of antibiotics and to address antibiotic-seeking behaviour among patients who may not necessarily be suffering from a bacterial infection.

Since its inception in 2008, PGEU and its members have systematically supported and engaged in the ECDC's EAAD to promote the prudent use of antibiotics²¹. PGEU is also a long-standing member of the ECDC's Technical Advisory Committee (TAC) which meets regularly to provide input into the strategy and materials for EAAD.



In 2013-2014 the PGEU actively contributed to the development of an EAAD toolkit for self-medication of antibiotics in collaboration with the Standing Committee of European Doctors (CPME). This resulted in a suite of materials available in all EU languages which can be adapted as necessary to raise awareness of the dangers of self-medication with antibiotics and their ineffectiveness against colds and seasonal 'flu²².

Since then, self-medication has been the focus of campaigns in primary care, including community pharmacies. PGEU also recently contributed to the ECDC's Proposals for EU guidelines on the prudent use of antimicrobials in humans 23 which resulted in the publication of the EU guidelines for the prudent use of antimicrobials in human health 24 .

²² ECDC Self-medication Toolkit Webpage.

²³ ECDC, 2017. European Centre for Disease Prevention and Control. Proposals for EU guidelines on the prudent use of antimicrobials in humans.

²⁴ EU Guidelines for the prudent use of antimicrobials in human health

²¹ ECDC, 2018. European Antibiotics Awareness Day. Web page.



WHO Europe and World Antibiotics Awareness Week



In 2014, PGEU collaborated with WHO Europe to survey community pharmacists, other healthcare professionals, government institutions and health service providers to outline the role community pharmacists can play in tackling AMR and encouraging the prudent use of antimicrobials. This collaboration resulted in a report which identified community pharmacists as important allies in the fight against AMR and that pharmacists already have experience in supporting the safe, effective and rational use of antibiotics, both responsibly and within the appropriate legal framework. Additionally, the report concludes that pharmacists are among the best positioned healthcare professionals to facilitate the appropriate use of antibiotics and, therefore, have a critical

role to play in tackling AMR alongside policy-makers and general practitioners²⁵. PGEU also engages in WHO's World Antibiotics Awareness Week (WAAW) campaign which complements the ECDC's EAAD.

EC Consultations and Joint Actions

PGEU regularly responds to European Commission consultations related to medicines and health in order to provide the community pharmacist perspective on such matters. PGEU recently responded to the Commission's consultation on the next EU Action Plan on AMR whilst also publishing a PGEU Best Practice Paper on AMR²⁶. This Best Practice Paper calls upon the Commission and other institutional actors to actively engage with community pharmacists in developing AMR policy, as well as raising awareness of the crucial role community pharmacists can play in tackling AMR and encouraging prudent use of antimicrobials.

PGEU has expressed an interest in contributing to the Joint Actions on Vaccination (EU-JAV) and AMR (EU-JAMRAI)²⁷. The JAs would benefit from participation

of PGEU and other healthcare professional representatives as this would enable the collection and dissemination of practice-based interventions concerning the prudent use of antimicrobials and communicable and vaccine-preventable diseases. PGEU also responded to two recent Commission consultations on strengthened cooperation against vaccine-preventable diseases, highlighting the role community pharmacists play in both raising awareness of the benefits of vaccination to patients and the public, as well as highlighting the emerging practice of vaccination in the pharmacy.

European Scientific Working Group on Influenza



PGEU is a partner member of the European Scientific Working Group on Influenza (ESWI)²⁸, a multi-professional, multi-stakeholder group comprising representatives from academia, practice, research and development, EU and international civil society and intergovernmental health institutions. ESWI's aims are to cautiously and considerately explain the benefits and risks of influenza control, prevention and treatment to the general public.

European Steering Group on Influenza Vaccination



PGEU is a member of the European Steering Group on Influenza Vaccination²⁹, chaired by MEP Françoise Grossetête. This is a multi-stakeholder, interdisciplinary group including community pharmacists, nurses, physicians, academics and patient representatives. The Steering Group has developed a Manifesto on Influenza Vaccination

to represent a tangible means of bringing different stakeholders from the community together around shared policy asks and to showcase commitment to this important cause – reducing the burden of influenza in Europe.

²⁵ WHO Europe, 2014. The role of pharmacist in encouraging prudent use of antibiotics and averting antimicrobial resistance: a review of policy and experience in Europe.

²⁶ PGEU, 2017. PGEU Best Practice Paper on AMR.

²⁷ INSERM, 2017. EU-JAMRAI Kick-off Meeting. Web page.

²⁸ ESWI, 2018. About ESWI. Web page.

²⁹ http://eufightingflu.com/



3. Action on Communicable Diseases and Vaccination at National Level

More than two-thirds of Europeans can access a pharmacy within five minutes, following which they can consult a community pharmacist without any appointment³⁰. Pharmacists, whilst they are acknowledged as the experts in medicines, also provide information and advice on a significant number of minor and self-limiting conditions including those caused by bacteria, viruses and other transmittable pathogens. Pharmacists can advise on, or treat a number of minor and self-limiting conditions, including viral, fungal, bacterial and parasitic infections, either with advice, or over-the-counter (OTC) medicines. They also provide information on antimicrobial stewardship, good hygiene practices and infection prevention, management and control.

The repertoire of pharmacy services and interventions continues to expand in response to the changing needs of society and health systems. This chapter outlines how pharmacists contribute to tackling communicable diseases and increasing vaccination awareness and coverage.

Public Awareness Campaigns and Self-care

Community pharmacists also participate in local, regional and national public health campaigns and initiatives, including those related to control of communicable diseases (such as the common cold, influenza, sexually-transmitted infections etc) and promotion of good hygiene practices. These include a variety of interventions ranging from advice on correct hand-washing techniques to other practical guidance such as infection prevention, control and management.

Furthermore, support for self-care can also be provided for chronically-ill and often poly-medicated patients who may be at a higher risk of communicable diseases (for example, those with HIV/AIDS, immunosuppressed patients, diabetic patients, the elderly, pregnant women, children and other at risk groups).

Screening and Signposting

As community pharmacists are often the first port of call in the primary healthcare system, they are well placed to identify signs and symptoms of potentially serious infectious diseases and make appropriate referral for further investigation. This action complements the participation in public health campaigns for endemic diseases by raising awareness for non-endemic communicable diseases, for example, the Ebola and Zika viruses, as seen in France and Spain. In France for example, a dedicated channel of communication operates between health authorities and community pharmacists via the 'Dossier Pharmaceutique' where alert or screening messages for public health emergencies can be communicated³¹. This 'Pharmaceutical Record' also permits secure and authorised exchange of data between community pharmacists themselves and between community pharmacists and other healthcare professionals, for example to prevent consecutive or concomitant treatment with the same class of antimicrobial medicines³².

³¹ http://lalettre.ordre.pharmacien.fr/accueil-lettre-47/Ebola-des-mesures-sanitaires-pour-lutter-contre-l-epidemie

³² http://www.ordre.pharmacien.fr/index.php/Le-Dossier-Pharmaceutique/Qu-est-ce-que-le-DP



Case study: Spain – Screening, signposting and information on communicable diseases

In Spain community pharmacists played an integral part in the screening, signposting and provision of information for recent outbreaks of infectious diseases including Ebola³³, Zika and other haemorrhagic fevers³⁴.



Advocacy and Managing Vaccine Hesitancy

Community pharmacists provide information and advice on local vaccination and immunisation schedules for their patients and the general public. This includes childhood vaccination schedules, which are particularly relevant as pregnant mothers and nursing families are regular visitors to community pharmacies. This also includes recommended and mandatory travel vaccinations and immunisations.

With their rigorous scientific educational background³⁵ and an established position as a pillar of the local community, (often with life-long relationships with their patients and communities), community pharmacists are an excellent resource for providing evidence-based, unbiased and balanced information on the benefits and risks of vaccination.

Vaccination for Health Professionals

As healthcare professionals themselves, pharmacists often ensure they're vaccinated each year against the seasonal influenza virus. Evidence suggests that HCPs who are vaccinated are more likely to encourage their patients to be vaccinated ³⁶. Additionally, in many countries pharmacists, like other healthcare professionals, are often immunised against Hepatitis B (Hep B) and the 'flu and in both cases, being vaccinated helps to prevent further transmission of the viruses between patients and their families when visiting the pharmacy.

 $^{33 \}quad http://www.portalfarma.com/ciudadanos/saludpublica/virus-ebola/Paginas/enfermedad-virus-ebola-(eve).aspx$

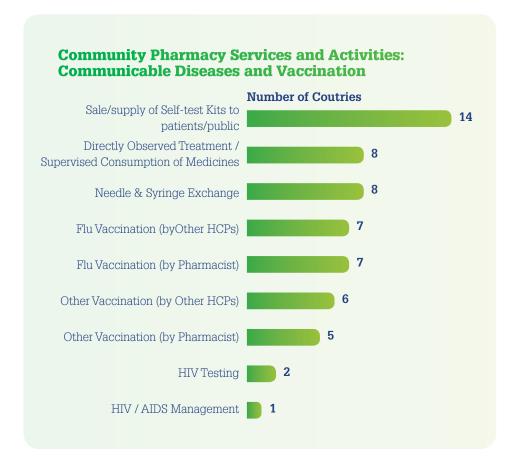
³⁴ http://www.portalfarma.com/Profesionales/campanaspf/Asesoramiento-salud-publica/Enfermedad-Virus-Zika/Paginas/default.aspx

³⁵ A minimum of five years covering all aspects of medicines, including vaccines development, from preclinical testing to post-marketing surveillance

³⁶ Paterson P et al. Vaccine hesitancy and healthcare providers. Vaccine. 2016; 34(52):6700-6706.



In addition to the activities mentioned above, community pharmacists increasingly provide targeted services to prevent and manage communicable diseases, as well as increasing vaccination coverage. Below is a table summarising some of these services.



Communicable Disease Testing and Management

Building on the existing repertoire of testing and screening services in community pharmacies (for example, cholesterol measurement – 22 countries, glucose – 23, blood pressure – 27 and weight – 28), the next evolution would be to provide rapid diagnostic testing (RDT) for infectious diseases such as for strep. A and C-reactive protein. Such rapid testing could encourage patients to practice self-care where results are negative for bacterial infections (thus reducing antibiotic-seeking behaviour from the pharmacy or physician) or seek further treatment from a physician if testing positive for bacterial infection. Additionally, pharmacies are also a reputable source from which the general public can obtain self-testing kits for HIV, for example in France, where the pharmacists follow robust protocols in order to safely supply the self-testing kits³⁷.

Pharmacists provide advice and information to improve medication adherence in patients receiving complex and long-term regimens as part of daily practice (for example, as standard counselling during dispensing of medicines or during dedicated medication reviews). Ensuring that complex and long-term regimens, such as those required to cure tuberculosis (six months or more) are effectively taken, has a direct influence on the success or failure of treatment, and therefore also the prevention of transmission of TB to others in the population and development of antimicrobial resistance. Pharmacists in eight countries can provide directly-observed treatment (DOT) or supervised consumption of medicines to increase the adherence of their patients on long-term and complex medication regimens.

Many pharmacists provide exact quantity dispensing of antimicrobial medicines through services such as unit-dose dispensing. Additionally, where a proprietary product is not readily available on the market which meets the patients' or prescriptions' requirements, pharmacists are able to compound medicines, including for antimicrobial medicines. These measures can help to improve treatment success (by improving adherence), tackle antimicrobial resistance and reduce transmission of communicable diseases.

 $^{37 \}quad http://www.cespharm.fr/fr/Prevention-sante/Catalogue/Fiche-pratique-Accompagner-la-dispensation-d-un-AUTOTEST-de-depistage-du-VIH-brochure$



Case study: Belgium - HIV Self-tests

In Belgium, community pharmacists can propose HIV self-tests to specific patients. A toolkit has been made available containing a number of useful items including: information leaflets, demonstration videos, pharmacist e-learning modules, checklists, lists of useful addresses and a post-exposure prophylaxis (PEP) brochure.



Case study: Sweden - Rapid diagnostic testing

In Sweden, an integrated eHealth service operates whereby patients can be referred to pharmacies for rapid diagnostic tests (RDTs) by the pharmacist from a physician. RDTs available include those for strep. A, C-reactive protein, haemoglobin and glucose³⁹.

In addition to self-testing for HIV, emerging in some European countries are support services for HIV positive patients who choose to collect their antiretroviral medicines at their community pharmacy instead of travelling to a hospital. This service can reduce additional time and financial cost to the patient (and ultimately increase adherence.)



Case study: Portugal - HIV Management

In Portugal, a pilot was recently established in order for HIV+ patients to receive their antiretroviral medicines via community pharmacies as an alternative to receiving them from a hospital. The aim of this pilot is to demonstrate the value to both patients and the health system of increasing the accessibility of HIV medicines and support for HIV+ patients in the primary care setting. Participating pharmacists undergo comprehensive training and certification and a second pilot is due to commence in March 2018.

HOSPITAL MEDICINES :: PHARMACY-BASED HIV MEDICINES DISPENSING PILOT

SOME FIGURES:







JANUARY 2018:

- ✓ 45 patients in the pilot trial intervention arm
 ✓ Distributed through 31 qualified pharmacies
- Forecast for more patients to be enrolled in second wave starting in March 2018
- The evaluation results for this study will be relevant to assess the impact of transferring HIV medicines to community pharmacies on medicines accessibility, patient outcomes and dignity of people living with HIV
- The results will also help to define future strategies in transferring other specialty medicines to pharmacies (i.e. oncology therapy)

Vaccination in the Pharmacy

Currently it is possible to receive a vaccination for the seasonal influenza virus in twelve European countries in a community pharmacy. In seven of these countries, a pharmacist can provide the vaccination, in three countries both pharmacists and other HCPs (a physician or a nurse) provide the vaccination, and in a further four countries physicians or nurses can provide the vaccination in a pharmacy. Community pharmacists administer other vaccinations (for example, pneumococcal, shingles, human papilloma virus (HPV), travel vaccinations) in five European countries.

Where pharmacists provide such services they must follow certified training programmes (including regular refresher courses) on administration of vaccines and the use of adrenaline (to manage anaphylaxis) and resuscitation procedures. Protocols are adhered to within the existing clinical governance and regulatory frameworks and pharmacists are qualified to prevent, mitigate and report any adverse reactions should they occur. Communication to the patients' general practitioner outlining any vaccination provided is mainly performed via traditional communication methods. However, greater use of e-notification or annotation of the patients' medical record, (for example, the patients' electronic health records (eHRs)), could improve the efficiency of such communication in the future. To date, there are no known cases of anaphylaxis reported from pharmacist administered vaccinations in Europe.



Case study: Portugal - 'Flu vaccination

In Portugal, pharmacists provide the seasonal influenza vaccination and like in other countries providing this service, a number of requirements and standards must be met. For example:

- 1. Pharmacists must complete mandatory training on vaccination;
- Recertification must take place regularly (every five years in Portugal);
- 3. Pharmacists must provide evidence of continued activity:
- 4. Pharmacists must obtain a certification on Basic Life Support. In addition to this, pharmacies must have an adequate room for providing the vaccination with all necessary equipment, and be able to manage any anaphylactic event (for example, use of adrenaline to be administered by the pharmacist).

Case study: England - Vaccination

In England, the seasonal influenza vaccination by pharmacists was first commissioned in 2010 at local level and since 2015 has been commissioned as a national service. Now, patients and the general public in England can receive their seasonal influenza vaccination in any pharmacy, without appointment. In the most recent full season (2016-17), almost 1.000.000 people were vaccinated in almost 8.500 community pharmacies⁴⁰. In order to provide this service pharmacists must undergo training, including regular refresher training, adhere to agreed protocols and communicate vaccination status of their patients to the patient's general practitioner. Other vaccinations available from a pharmacist include pneumococcal, meningitis. shingles and travel immunisations.

Case study: Ireland - 'Flu vaccination

Irish community pharmacists have been providing the seasonal influenza vaccination since 2011 and to date, more than a quarter of a million patients have received their 'flu vaccination in a pharmacy. Statistics show that provision via community pharmacies increases coverage for people who had never received the vaccination before (one in six), with 99% of patients indicating that they would return to the pharmacy for their next vaccination. Patient satisfaction with the service is very positive with 93% of patients rating the service either 9/10 or 10/10⁴¹.

⁴¹ http://www.thepsi.ie/Libraries/Pharmacy Practice/Report on Patient Feedback on the Flu Vaccination Service Provided in Pharmacies.sflb.ashx



Case study: Switzerland - 'flu vaccination

In Switzerland, vaccination services by pharmacists has been available since 2015 on a cantonal basis (18 of the 26 cantons currently provide vaccination in a pharmacy). Each canton decides individually which vaccinations are delivered, and consequently in some cantons only the influenza vaccine is given, whereas in others all the vaccinations included in the national vaccination plan are available. In order to provide this service, pharmacists have to undergo specific additional training including on injection techniques and theoretical aspects of vaccination and resuscitation, (basic life-support and use of an automated external defibrillator) and must obtain a vaccination certificate. Pharmacists follow triage questionnaires provided by the Swiss pharmacists' association (pharmaSuisse). pharmaSuisse also provides pharmacists with communication materials and a national website containing all relevant information for pharmacists to deliver the service and a list of pharmacies offering vaccination services in pharmacies for the public^{42,43}.



To date, more than 1100 pharmacists are certified and more than 530 pharmacies are registered to offer vaccination services in Switzerland. According to the online database where vaccinations are registered, pharmacists administered a total of 15.000 influenza vaccinations during the 2017/18 season and 7500 in the 2016/17 season. Since December

2016, 1900 vaccinations against tick-borne encephalitis were registered. pharmaSuisse regularly collaborates with the Federal Department of Health and pharmacists are mentioned as important players and included in the Swiss National Vaccination Strategy⁴⁴. PharmaSuisse, together with the Federal Department of Health and the Council of general practitioners, are planning a common national influenza vaccination day.

Case study: Denmark - 'Flu vaccination

Vaccinations can be administered in Danish pharmacies by other healthcare professionals and by pharmacists following delegation by a physician. By 2017, approximately a third of Danish pharmacies have specially trained pharmacists providing seasonal influenza vaccinations under a defined protocol. The mandatory training includes specific requirements for the pharmacists to undertake relevant continuous professional development (CPD) and to keep confidential records for vaccinated patients. Such details are kept in electronic format in a national vaccination database. The 'flu vaccination service started in Copenhagen in 2014 and today it is a national service with pharmacies in numerous locations around Denmark offering the service.

Case study: France - Pilot 'flu vaccination

In 2016, only 46% of the at risk population in France were vaccinated against influenza, which is way below the WHO/Commission recommendation of 75%. In 2017, the French government announced a pilot project aiming to improve influenza immunization coverage of the adult population by making this service available through community pharmacies. It builds on existing evidence of improved vaccination coverage in other European countries where this service is available from pharmacies. Two-thousand eight-hundred and thirteen pharmacies from the Nouvelle-Aquitaine and Auvergne-Rhône-Alpes regions (corresponding to 58.8% of all pharmacies in the regions), took part in the pilot. Community pharmacists participating in the pilot followed relevant education and training courses and were supported by the French Chamber of Pharmacists via a dedicated online platform, which also served as data collection point. Five-thousand and seventy three trained community pharmacists delivered 159,139 vaccinations in the period from September 2017 to March 2018.

⁴² www.impfapotheke.ch

⁴³ www.vaccinationenpharmacie.ch

⁴⁴ https://www.bag.admin.ch/bag/de/home/themen/strategien-politik/nationale-gesundheitsstrategien/nationale-strategie-impfungen-nsi.html



Travel Services

Community pharmacists are ideally placed to offer information and advice on safe and healthy travel across the globe. Infectious diseases account for a significant risk for overseas travel, particularly outside of Europe in tropical destinations. Pharmacists provide advice and prophylactic measures for malaria, avoidance of gastro-intestinal disturbances and can raise awareness of the need for any recommended vaccinations or immunisations needed for specific destinations.

Case study: Spain - Travel advice

Si te vas a un viaje internacional debes saber...



La vacunación es un método altamente eficaz para prevenir determinadas enfermedades infecciosas,

Además es importante adoptar medidas preventivas como el uso de repelentes o evitar el consumo de alimentos y agua potencialmente contaminados necesarias para evitar, antes, durante y después del viaje, la denominada patología del viajero.

Spanish community pharmacists provide information, advice and support to travellers on nine different recommended immunisations and three obligatory immunisations.



- · Cálera
- Fiebre Titoidea
 Fiebre Amerilla

Tétanos

- Meningococo

- ¿Qué vacunas <mark>son obligatorias</mark> para entrar a ciertos países
 - Fiebre emarilla
 - Meningococo (requallo para peregrinus en Arabia Soud)
 - Polio
 - Polic

To complement the provision of information, advice and prophylactic measures for travel-related communicable diseases, community pharmacists can also provide a comprehensive service for travelling patients. Such services can also include administration of necessary vaccinations and immunisations in addition to practical information, advice and prophylactic measures.

Needle and Syringe Exchange and Harm Reduction

In terms of harm reduction, pharmacies in eight countries provide a sterile needle and syringe exchange programme where intravenous drug users can obtain clean injecting equipment, support and information. This is complemented by support for self-care and referral to another health or social care professional if needed. This service is particularly relevant for preventing transmission of blood-borne viruses such as HIV and Hep C.

Case study: Finland - Needle and syringe service

In Finland, approximately 90% of pharmacies provide 'Stop Bags' containing sterile equipment and information to direct intravenous drug users to places where they can obtain further support and services.



The packs contain three needles, syringes and sterile wipes, a contact card for Narcotics Anonymous, a telephone number of a "quit drugs" help line and instructions on how to use and dispose of the equipment appropriately.



4. Conclusions and Recommendations

Conclusions

Community pharmacists are highly trained healthcare professionals with an expert knowledge of medicines and common ailments, including communicable diseases. Community pharmacists are excellently positioned within European communities in primary care to provide information, advice, referral, treatment and preventative actions to reduce the burden of communicable and vaccine-preventable diseases. In addition to their core range of services and activities, community pharmacists across Europe are increasingly providing new and innovative services to complement wider efforts within health services to reduce the transmission of communicable diseases, improve effectiveness of treatment and increase vaccination coverage of the population.

Recommendations

The PGEU makes several recommendations to EU Institutions, Member States and the wider public in order to maximise the potential contribution community pharmacists can make to tackling communicable diseases and encouraging better vaccination coverage.

- 1. European institutions and agencies are encouraged to continue and strengthen collaboration with community pharmacists and pharmacy organisations at European level, for example in the Joint Actions on AMR and Vaccination;
- 2. National governments are called-upon to include and integrate community pharmacists into national vaccination strategies;
- 3. Pharmacists should be enabled to provide new and innovative services in response to the threat posed by communicable diseases and vaccine hesitancy;
- 4. Pharmacists should be better integrated into primary healthcare systems and services, for example, integration of eHRs to facilitate efficient notification of pharmacists intervention to the patient's medical record;
- 5. Services, such as vaccination should be globally commissioned within national health systems;
- 6. Pharmacists should be encouraged to vaccinate themselves against influenza.



Contacts

Rue du Luxembourg 19 | 1000 Brussels | Belgium T +32 (0)2 238 0818 | F +32 (0)2 238 0819 Email: pharmacy@pgeu.eu





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