Open Public Consultation on the revision of the general pharmaceutical legislation

Fields marked with * are mandatory.

Introduction


The Pharmaceutical Strategy identifies flagship initiatives and other actions to ensure the delivery of tangible results. As part of the implementation of the strategy, the Commission is evaluating the general pharmaceutical legislation and assessing the impacts of possible changes in the legislation as described in the relevant inception impact assessment.

This public consultation aims to collect views of stakeholders and the general public in order to support the evaluation of the existing general pharmaceutical legislation and the impact assessment of its revision. It builds further on the public consultation conducted for the preparation of the pharmaceutical strategy for Europe. The replies to that consultation will be taken into account for the revision of the general pharmaceutical legislation. The present questionnaire should be seen as a continuation of that process.

In parallel, the legislation for medicines for rare diseases and children is being revised as well. Separate consultation activities have been carried out for that revision.

This questionnaire is available in all EU languages and you can reply in any EU language. You can pause any time and continue later. You can download your contribution once you have submitted your answers.

A summary on the outcome of the public consultation will be published by the Commission services on the ‘Have your say’ portal.

We thank you for your participation.


• Language of my contribution
  ○ Bulgarian
  ○ Croatian
  ○ Czech
  ○ Danish
  ○ Dutch
  ○ English
  ○ Estonian
  ○ Finnish
  ○ French
  ○ German
  ○ Greek
  ○ Hungarian
  ○ Irish
  ○ Italian
  ○ Latvian
  ○ Lithuanian
  ○ Maltese
  ○ Polish
  ○ Portuguese
  ○ Romanian
  ○ Slovak
  ○ Slovenian
  ○ Spanish
  ○ Swedish

• I am giving my contribution as
  ○ Academic/research institution
  ○ Business association
  ○ Company/business organisation
  ○ Consumer organisation
  ○ EU citizen
  ○ Environmental organisation
  ○ Non-EU citizen
Which stakeholder group do you represent?
- Individual member of the public
- Patient or consumer organisation
- Healthcare professional
- Healthcare provider organisation (incl. hospitals, pharmacies)
- Healthcare payer
- Centralised health goods procurement body
- Health technology assessment body
- Academic researcher
- Research funder
- Learned society
- European research infrastructure
- Other scientific organisation
- Environmental organisation
- Pharmaceuticals industry
- Chemicals industry
- Pharmaceuticals traders/wholesalers
- Medical devices industry
- Public authority (e.g. national ministries of health, medicines agencies, pricing and reimbursement authorities)
- EU regulatory partner / EU institution
- Non-EU regulator / non-EU body
- Other (Please specify)

First name

Jolanta

Surname

Kunikowska
Email (this won't be published)

s.niederkofler@eanm.org

Organisation name

255 character(s) maximum

European Association of Nuclear Medicine

Organisation size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

Transparency register number

255 character(s) maximum

Check if your organisation is on the transparency register. It's a voluntary database for organisations seeking to influence EU decision-making.

348978437245-85

Country of origin

Please add your country of origin, or that of your organisation.

- Afghanistan
- Åland Islands
- Albania
- Algeria
- American Samoa
- Andorra
- Angola
- Anguilla
- Antarctica
- Antigua and Barbuda
- Djibouti
- Dominica
- Dominican Republic
- Ecuador
- Egypt
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Eswatini
- Libya
- Liechtenstein
- Lithuania
- Luxembourg
- Macau
- Madagascar
- Malawi
- Malaysia
- Maldives
- Mali
- Saint Martin
- Saint Pierre and Miquelon
- Saint Vincent and the Grenadines
- Samoa
- San Marino
- São Tomé and Príncipe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
Bulgaria
Burkina Faso
Burundi
Cambodia
Cameroon
Canada
Cape Verde
Cayman Islands
Central African Republic
Chad
Chile
China
Christmas Island
Clipperton
Cocos (Keeling) Islands
Colombia
Comoros
Congo
Cook Islands
Costa Rica
Côte d'Ivoire
Croatia
Cuba
Curaçao
Cyprus
Heard Island and McDonald Islands
Honduras
Hong Kong
Hungary
Iceland
India
Indonesia
Iran
Iraq
Ireland
Isle of Man
Israel
Italy
Jamaica
Japan
Jersey
Jordan
Kazakhstan
Kenya
Kiribati
Kosovo
Kuwait
Kyrgyzstan
Laos
Latvia
Niue
Northern Island
Northern Mariana Islands
North Korea
North Macedonia
Norway
Oman
Pakistan
Palau
Palestine
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Pitcairn Islands
Poland
Portugal
Puerto Rico
Qatar
Réunion
Romania
Russia
Rwanda
Saint Barthélemy
Togo
Tokelau
Tonga
Trinidad and Tobago
Tunisia
Turkey
Turkmenistan
Turks and Caicos Islands
Tuvalu
Uganda
Ukraine
United Arab Emirates
United Kingdom
United States
United States Minor Outlying Islands
Uruguay
US Virgin Islands
Uzbekistan
Vanuatu
Vatican City
Venezuela
Vietnam
Wallis and Futuna
Western Sahara
Yemen
The Commission will publish all contributions to this public consultation. You can choose whether you would prefer to have your details published or to remain anonymous when your contribution is published. For the purpose of transparency, the type of respondent (for example, ‘business association,’ ‘consumer association,’ ‘EU citizen’) country of origin, organisation name and size, and its transparency register number, are always published. Your e-mail address will never be published.

Opt in to select the privacy option that best suits you. Privacy options default based on the type of respondent selected.

**Contribution publication privacy settings**

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

- **Anonymous**
  Only organisation details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published as received. Your name will not be published. Please do not include any personal data in the contribution itself if you want to remain anonymous.

- **Public**
  Organisation details and respondent details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published. Your name will also be published.

- I agree with the [personal data protection provisions](#)

**Looking back**

As mentioned in the Inception Impact assessment, the revision aims to tackle the following problems:
- Unmet medical needs and market failures for medicines other than medicines for rare diseases and children;
- Unequal access to available and affordable medicines for patients across the EU;
- The current legislative framework may not be fully equipped to respond quickly to innovation;
- Inefficiency and administrative burden of regulatory procedures;
- Vulnerability of supply of medicines, shortages of medicines;
- Environmental challenges and sustainability;
- Any other issues, which might emerge from the evaluation.

Q1 In your opinion, are there any other issues that should be addressed in this revision?

800 character(s) maximum

A major aspect to be addressed is bedside/in-house preparation of medicinal products, especially radiopharmaceuticals (RP). The pharma acquis mainly focuses on industrial/large scale manufacturing intended to be distributed commercially, leaving behind an important part of the pharmaceutical innovation, especially in the field of nuclear medicine.

The procedure and the implementation rules by EMA for granting a marketing authorization (MA) for RPs should be reconsidered.
- Therapeutic RP: the MA holder has to define a posology based on body weight, contradicting the Directive 2013/59/Euratom requiring an individual customized dosing.
- Diagnostic RP: the MA holder has to define a fixed activity concentration at a defined time point which is inappropriate for half-lives of few hours

Q2 How has the legislation performed in terms of the following elements?

<table>
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<th>Very well</th>
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<tr>
<td>1. Fulfilling its public health protection mission for patients and society.</td>
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<td>2. Promoting the development of new medicines, especially for unmet medical needs.</td>
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<td>3. Enabling timely development of medicines at all times, including during crises.</td>
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<td>4. Enabling timely authorisation, including scientific evaluation, of medicines in normal times.</td>
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<td>5. Enabling timely authorisation, including scientific evaluation during crises.</td>
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<td>6. Adapting efficiently and effectively to technological and scientific advancements and innovation.</td>
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<td>Ensuring medicines are of high quality, safe and effective.</td>
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<td>Addressing the competitive functioning of the market to support affordability.</td>
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<td>9</td>
<td>Ensuring the availability of generic(^3) and biosimilar(^4) medicines.</td>
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\(^3\) "Generic" is a copy of a medicine based on simple or chemical molecules.  
\(^4\) "Biosimilar" is a copy of a medicine based on biological molecules.

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<thead>
<tr>
<th></th>
<th>Ensuring that new medicines are timely available to patients in all EU countries.</th>
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<td>11</td>
<td>Ensuring that medicines stay on the market at all times and that there are no shortages.</td>
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<td>12</td>
<td>Ensuring that authorised medicines are manufactured, used and disposed of in an environmentally friendly manner.</td>
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<td>13</td>
<td>Ensuring that the EU system for development, authorisation and monitoring of medicines, including its rules and procedures, is understandable and easy to navigate.</td>
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<td>14</td>
<td>Attracting global investment for medicine innovation in the EU.</td>
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Is there any other aspect you would like to mention, including positive or unintended effects of the legislation, or would you like to justify your replies?  
800 character(s) maximum

Article 6 Nr. 2 of Dir 2001/83 imposes the need for a MA on “radionuclide precursor radiopharmaceuticals”. In Article 1 instead of a definition for "radionuclide precursor radiopharmaceutical" a definition is given for the term radionuclide precursor. This led to the unintended effect that all radionuclides regardless of the type of preparation they are used in (kit-type procedure or complex preparation) need a MA to be distributed from a site that has the technical provisions for radionuclide production (accelerator, nuclear reactor etc.) to another site that is equipped for the radiosynthesis of the final radiopharmaceutical. Strict interpretation of the directive therefore leads to the non-availability of radionuclides that are prepared by technically demanding infrastructure.

Looking forward
This section reflects on possible solutions to address the problems identified in the inception impact assessment mentioned in the previous section.

Your contribution will help us in defining the way forward.

**UNMET MEDICAL NEEDS**

One of the aims of the strategy is to stimulate innovation and breakthrough therapies, especially in areas of 'unmet medical need'.

Regulators, health technology assessment experts and representatives of bodies responsible for reimbursing or paying for medicines ('payers') are discussing a definition or a set of principles for 'unmet medical needs'\(^5\) in order to achieve the objectives of the general pharmaceutical legislation. The discussions reveal different perceptions of what is an 'unmet medical need'. Convergence on this key concept should facilitate the design of clinical trials, generation of evidence and its assessment, and the quick availability on the market of these products and ensuring that innovation matches the needs of patients and of the national health systems.

The purpose of this question is to identify elements that are important in defining what is unmet medical need and in which areas of unmet medical need innovation should be stimulated.

\(^{[5]}\) Please note that a similar discussion is taking place in the context of medicines for rare diseases and for children. The concept of 'unmet needs' in the context of rare diseases and children might be slightly differentiated compared to 'unmet needs' in the context of the general pharmaceutical legislation.

**Q3 How important are the following elements for defining ‘unmet medical needs’?**

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<td>1. Seriousness of a disease.</td>
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<td>2. Absence of satisfactory treatment authorised in the EU.</td>
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<td>3. A new medicine has major therapeutic advantage over existing treatment(s).</td>
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<td>4. Lack of access for patients across the EU to an authorised treatment.</td>
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<td>5. Other (please specify).</td>
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Is there any other aspect you would like to mention, for example on the potential economic, social, environmental or other impacts of the outlined elements, or would you like to justify your replies?

800 character(s) maximum

This is key to get a multi-stakeholder endorsed definition to avoid a too strict interpretation. A legally binding definition raises more problems than it would solve, leading potentially to long discussions to the detriment of the populations intended to be served.

Unmet medical needs are implicit in the ‘significant benefit’ criteria. A commonly understood definition by all stakeholders (in particular regulators, HTA bodies, payers, medicine developers & patients) is expected. Quality-of-Life and patient-reported outcomes must be part of the criteria for ‘significant benefit’. The definition should also take into account the burden of disease, prevalence, quality of life and societal needs. In addition, it should not only consider medicines, but all treatment modalities, like radiation.

INCENTIVES FOR INNOVATION

The general pharmaceutical legislation guarantees the pharmaceutical innovator, typically a company, regulatory data and market protection for its new medicinal product. This data protection makes sure that another pharmaceutical company cannot re-use the proprietary data of the innovator for 8 years. Market protection makes sure that a generic or biosimilar medicine cannot be marketed until 10 years after authorisation. This dual protection shields a pharmaceutical innovator from generics or biosimilars on the market for 10 years. This protection is part of the EU system of incentives for innovation. The EU regime of intellectual property protection provides an additional protection coverage but is beyond the scope of this questionnaire and the revision of the general pharmaceutical legislation.
**Q4 What do you think of the following measures to support innovation, including for ‘unmet medical needs’?**

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<th>Measure</th>
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<tr>
<td>1. The current data and market protection periods for innovative medicines: 10 years of market protection, and 8 years of data protection.</td>
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<td>2. Provide different data and market protection periods depending on the purpose of the medicine (i.e. longer period of protection in areas of unmet medical need).</td>
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<td>3. Reduce the data and market protection periods to allow earlier access for generic and biosimilar medicines to the market.</td>
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<td>4. Introduce new types of incentives[^6] on top of the existing data and market protection for medicines addressing an ‘unmet medical need’.</td>
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<td>[^6] Examples of new incentives are a transferable exclusivity voucher or a priority review voucher. A transferable exclusivity voucher would give the legal right to extend the protection time period of any other patented medicinal product, in exchange for the successful regulatory approval of a specified medicine for unmet medical need (e.g. an antibiotic). The voucher would be transferable or saleable, and may impact the turnover and profitability levels of other products in a developer’s portfolio. A priority review voucher gives priority to the assessment of the application of the medicine in question or another medicine in the applicant’s portfolio.</td>
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<td>5. Early scientific support and faster review/authorisation of a new promising medicine for an unmet medical need.</td>
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<td>6. Public listing of priority therapeutic areas of high unmet medical need to support product development by providing incentives.</td>
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<td>7. Require transparent reporting from companies about their research and development costs and public funding as a condition to obtain certain incentives.</td>
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Is there any other aspect you would like to mention, for example on the potential economic, social, environmental or other impacts of the outlined measures, or would you like to justify/elaborate your replies?

800 character(s) maximum

The system of orphan drugs and market protection is not suitable for many RPs, as the market potential for many RPs is limited. Measures such as strengthening the in-house individual preparations outside the marketing authorization track would be more effective. Development of innovative RPs often takes place in radiopharmacies or research centers: all recent major breakthroughs were based on the use of in-house preparations of innovative RPs. In case a new RP has potential to be produced and distributed commercially, it then makes its way to pharmaceutical companies, taking over from academia and providing funding for further clinical trials. It is of the utmost importance that the revision includes specific provisions and incentives for academic research and hospital preparations.

ANTIMICROBIAL RESISTANCE

Antimicrobial resistance (AMR) is the ability of microorganisms (such as bacteria, viruses, fungi or parasites) to survive and grow over time and no longer respond to medicines making infections harder to treat and increasing the risk of infections, severe illness and death. Antimicrobials include antibiotics, which are substances that fight bacterial infections. Overprescribing, overuse and inappropriate use of antibiotics are key drivers of AMR, leading to harmful health outcomes. The question below is intended to collect opinions on both the incentives for the development of new antimicrobials as well as possible option on their prudent use.

Q5 Should there be specific regulatory incentives for the development of new antimicrobials while taking into account the need for more prudent use and if so what should they be?

1000 character(s) maximum

FUTURE PROOFING: ADAPTED, AGILE AND PREDICTABLE REGULATORY FRAMEWORK FOR NOVEL PRODUCTS

Novel products and innovative solutions continue to challenge the understanding of a “medicinal product” with low volume, and cutting-edge products (e.g. medicines combined with self-learning artificial intelligence) becoming a new reality. ‘Bedside’ manufacture of more individualised medicines changes the way medicines are produced. There are classification and interplay challenges with other medical products, such as medical devices and substances of human origin, or related to the combination of clinical trials with in vitro diagnostics/medical devices and medicines. In addition, certain cell-based advanced therapy medicines are offered in hospital settings and are exempted from aspects of the pharmaceutical legislation. These developments offer possibilities for novel promising treatments and new ways of authorising and monitoring medicines but they are also testing the limits of the current regulatory system.
They need to be addressed to unfold their potential while safeguarding the principles of high quality, safety and efficacy of medicines.

Digital transformation is affecting the discovery, development, manufacture, evidence generation, assessment, supply and use of medicines. Medicines, medical technologies and digital health are becoming increasingly integral to overarching therapeutic options. These include systems based on artificial intelligence for prevention, diagnosis, better treatment, therapeutic monitoring and data for personalised medicines and other healthcare applications.

[8] Advanced therapy medicinal products (ATMPs) are medicines for human use that are based on genes, tissues or cells. They offer ground-breaking new opportunities for the treatment of disease and injury.
### Q6 How would you assess the following measures to create an adapted, agile and predictable regulatory framework for novel products?

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<tr>
<th>Measure</th>
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<tr>
<td>1. Maintain the current rules.</td>
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<td>2. Create a central mechanism in close coordination with other concerned authorities (e.g. those responsible for medical devices, substances of human origins) to provide non-binding scientific advice on whether a treatment/product should be classified as a medicine or not.</td>
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<td>3. Make use of the possibility for ‘regulatory sandboxes’(^9) in legislation to pilot certain categories of novel products/technologies.</td>
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<td>[^9] Some very innovative solutions fail to see the light of day because of regulations which might be outdated or poorly adapted for fast evolving technologies. One way to address this is through regulatory sandboxes. This enables innovative solutions not already foreseen in regulations or guidelines to be live-tested with supervisors and regulators, provided that the appropriate conditions are in place, for example to ensure equal treatment. Regulatory sandboxes provide up-to-date information to regulators and supervisors on, and experience with, new technology, while enabling policy experimentation. See COM(2020) 103 final.</td>
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<td>4. Create adaptive regulatory frameworks (e.g. adapted requirements for authorisation and monitoring with possibility to adjust easily to scientific progress) for certain novel types of medicines or low volume products (hospital preparations) in coherence with other legal frameworks (e.g. medical devices and substances of human origin(^10)) and respecting the principles of quality, safety and efficacy.</td>
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<td>[^10] Substances that are donated by humans such as blood, plasma, cells, gametes, tissues and organs and are applied as therapy. Some substances of human origin can also become starting materials to manufacture medicines.</td>
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<td>5. Introduce an EU-wide centrally coordinated process for early dialogue and more coordination among clinical trial, marketing authorisation, health technology assessment bodies, pricing and reimbursement authorities and payers for integrated medicines development and post-authorisation monitoring.</td>
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Is there any other aspect you would like to mention, for example on the potential economic, social, environmental or other impacts of the outlined measures, or would you like to justify/elaborate your replies?

800 character(s) maximum

The EANM welcomes the acknowledgement of the current shift towards bedside/hospitals and more individualized preparations in the pharmaceutical ecosystem and is pleased to see that the European Commission understands that innovative solutions challenging the definition of medicinal product are testing the limit of the current regulatory system.

In this regard, the review of the pharmaceutical legislation should consider adaptations to the current system of authorizations and new regulatory pathways to accommodate to new products, such as innovative RPs.

Q7. Do you think that certain definitions and the scope of the legislation need to be updated to reflect scientific and technological developments in the sector (e.g. personalised medicines, bedside manufacturing, artificial intelligence) and if so what would you propose to change?

1000 character(s) maximum

Since 2001, the technological advances in R&D of new RPs have changed most of practices of preparations and delivery, justifying some adaptations within regulatory framework:

- RP require preparation in dedicated facilities not in standard hospital pharmacies. Therefore, the exemptions for pharmacies that have reasonably been established in the existing legislation for magistral and officinal preparations are not generally applicable to RP preparations and the regulatory practice thus varies considerably throughout Europe.
- A new definition of kit preparation is needed, especially defining what is out of the scope of a kit and therefore not in need for a marketing authorization.
- A definition of “radionuclide precursor radiopharmaceutical” (Art. 6 N. 2) is lacking and should be added instead of “radionuclide precursor” (Art. 1 N. 9), as suggested: a radionuclide produced and ready to use for the preparation of a radiopharmaceutical by combination with a kit.

REWARDS AND OBLIGATIONS RELATED TO IMPROVED ACCESS TO MEDICINES

Some medicines and therapies do not always reach patients in all EU countries, so patients in the EU still have different levels of access to medicines, depending on where they live. Even if a medicine received an EU-wide authorisation, companies are currently not obliged to market it in all EU countries. A company may decide not to market its medicines in, or decide to withdraw them from, one or more countries. This can be due to various factors, such as national pricing and reimbursement policies, size of the population and level of wealth, the organisation of health systems and national administrative procedures. Smaller markets in particular face challenges for availability and supplies of medicines.

Q8 How would you assess the following measures to improve patient access to medicines across the EU?
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<th>Very important</th>
<th>Important</th>
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<th>Slightly important</th>
<th>Not important</th>
<th>Don’t know</th>
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<tbody>
<tr>
<td>1. Maintain the current rules which provide no obligation to market medicines in all EU countries.</td>
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<td>2. Require companies to notify their market launch intentions to regulators at the time of the authorisation of the medicine.</td>
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<td>3. Introduce incentives for swift market launch across the EU.</td>
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<td>4. Allow early introduction of generics in case of delayed market launch of medicines across the EU, while respecting intellectual property rights.</td>
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<td>5. Require companies to place – within a certain period after authorisation – a medicine on the market of the majority of Member States, that includes small markets.</td>
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<td>6. Require companies withdrawing a medicine from the market to offer another company to take over the medicine.</td>
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<td>7. Introduce rules on electronic product information to replace the paper package leaflet.</td>
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<td>8. Introduce harmonised rules for multi-country packages of medicines.</td>
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<td>9. Other (please specify).</td>
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Is there any other aspect you would like to mention, for example on the potential economic, social, environmental or other impacts of the outlined measures, or would you like to justify/elaborate your replies?

800 character(s) maximum

Patient access to novel diagnostic and therapeutic radiopharmaceuticals is limited because of a lack of commercial interest for some types of RPs. Therefore, the availability of RP needs to be improved by enabling different types of marketing schemes. In addition, recent years have seen withdrawal of marketing authorization of well established RP with limited market value; there should be incentives to simplify retaining or re-gaining market authorisations, e.g. by accepting single English SPCs, easier access to nationally registered products in other member states, introducing waivers for retaining marketing authorization, if sales are limited etc.

ENHANCE THE COMPETITIVE FUNCTIONING OF THE MARKET TO ENSURE AFFORDABLE MEDICINES

The affordability of medicines has implications for both public and household finances. It poses a growing challenge to pay for medicines in the majority of Member States. Often, innovative medicines have higher prices, while there are growing concerns among stakeholders about the real-life effectiveness of some medicines and related overall costs. This puts the budgetary sustainability of health systems at risk, and reduces the possibilities for patients to have access to these medicines. Generics and biosimilars of medicines which no longer benefit from intellectual property protection (off-patent medicines) may provide accessible and affordable treatments. They also increase the availability of alternative treatment options for patients. They may also increase competition between available medicines. However, experience shows that there are still barriers for medicines entering the EU market, including for generics or biosimilars.

[11] “Generics” are copies of medicines based on simple or chemical molecules; “biosimilars” are copies of medicines based on biological molecules.

Q9 In your view, to what extent would the following measures support access to affordable medicines?

<table>
<thead>
<tr>
<th>Measure</th>
<th>To a great extent</th>
<th>To a certain extent</th>
<th>No change</th>
<th>Very little</th>
<th>Not at all</th>
<th>Don’t know</th>
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<tbody>
<tr>
<td>1. Maintain the current rules.</td>
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<td>2. Stimulate earlier market entry through a broader possibility to authorise generics /biosimilars despite ongoing patent protection (‘Bolar exemption’)[12].</td>
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[12] The Bolar exemption allows companies to conduct research on patent protected medicines under the condition that it is with a view to apply for a marketing authorisation for a generic.
3. Create a specific (regulatory) incentive for a limited number of biosimilars that come to the market first.

4. Introduce an EU-wide scientific recommendation on interchangeability for specific biosimilars.

5. Introduce other, non-legislative measures, such as joint procurement to reinforce competition while addressing security of supply and environmental challenges.

6. Other (please specify).

Is there any other aspect you would like to mention, for example on the potential economic, social, environmental or other impacts of the outlined measures, or would you like to justify/elaborate your replies?

800 character(s) maximum

Biosimilar and generics are not the only tools to foster access to affordable medicines. Reimbursement and pricing strategies of radiopharmaceuticals in Europe vary significantly between member states. The variation seen is a consequence of reimbursement and pricing being decided at a national level. This means that access to radionuclide therapy is not uniform across the Union. The EANM would therefore welcome further studies to be conducted on appropriate reimbursement through Health Technology Assessment for RP, as well as European guidelines on reimbursement schemes for RP.

**REPURPOSING OF MEDICINES**

Repurposing is the process of identifying a new use for an established medicine in a disease or condition other than that it is currently authorised for. Repurposing of older (off-patent) medicines constitutes an emerging and dynamic field of medicines development, often led by academic units and medical research charities, with the potential for faster development times and reduced costs as well as lower risks for companies. This is because repurposing commonly starts with substances that have already been tested and many have demonstrated an acceptable level of safety and tolerability. The objective is to identify the opportunities and address any regulatory burdens to facilitate repurposing of off-patent, affordable medicines.

**Q10 What measures could stimulate the repurposing of off-patent medicines and provide additional uses of the medicine against new diseases and medical conditions? Please justify your answers.**

1000 character(s) maximum

**SECURITY OF SUPPLY OF MEDICINES**
Shortages of medicines and the vulnerabilities in the pharmaceutical supply chain continue to be concerns in the EU. Shortages of medicines can have serious impacts on patient care. Under the current pharmaceutical legislation, pharmaceutical companies and wholesalers must, within the limits of their responsibilities, ensure a continued supply of medicines once they are placed on the market in the EU. Companies must also notify national authorities at least two months before an expected shortage or planned market withdrawal.
**Q11 What is your view on the following measures to ensure security of supply of medicines in the EU?**

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<thead>
<tr>
<th>Measure</th>
<th>Very important</th>
<th>Important</th>
<th>Fairly important</th>
<th>Slightly important</th>
<th>Not important</th>
<th>Don’t know</th>
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<tbody>
<tr>
<td>1. Maintain the current rules.</td>
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<tr>
<td>2. Earlier reporting of shortages and market withdrawals to national authorities in a common format.</td>
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<td>3. Companies to have shortage prevention plans.</td>
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<td>4. Companies to have safety stocks.</td>
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<td>5. Monitoring of supply and demand at national level.</td>
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<td>6. Introduce a shortage monitoring system at EU level.</td>
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<td>7. Require companies to diversify their supply chains, in particular the number of key suppliers of medicines and components.</td>
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<td>8. Companies to provide more information to regulators on their supply chain.</td>
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<td>9. Introduce penalties for non-compliance by companies with proposed new obligations.</td>
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<td>10. EU coordination to help identify areas where consolidation in the supply chain has reduced the number of suppliers.</td>
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<td>11. Other (please specify)</td>
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</table>
Is there any other aspect you would like to mention, for example on the potential economic, social, environmental or other impacts of the outlined measures, or would you like to justify/elaborate your replies?

**800 character(s) maximum**

Due to the short life of RP, time management & having access to transportation hubs that understand the need for quick & swift processing is key. The transport of radioactive material is regulated by 2 dedicated laws on the transport of dangerous goods, on the road (ADR) or by aviation (IATA), being major hurdles for an efficient and unbureaucratic supply of RPs.

The EANM is concerned with the Europe-wide issue of ageing research reactors. While the number of accelerators is increasing, the supply of medical radioisotopes relies on a limited number of research reactors.

This review should include the necessary measures to support a robust supply chain for radioisotopes which goes beyond irradiation of targets and includes the supply of target material and processing capabilities.

**QUALITY AND MANUFACTURING**

Medicines manufactured for the EU market must comply with the principles and guidelines of good manufacturing practice (GMP). GMP describes the minimum standard that a medicines manufacturer must meet in their production processes. GMP requires that medicines are of consistent high quality, are appropriate for their intended use and meet the requirements of the marketing authorisation or clinical trial authorisation.

Q12 What is your opinion of the following measures to ensure manufacturing and distribution of high quality products?

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<th></th>
<th>Very adequate</th>
<th>Adequate</th>
<th>Neutral</th>
<th>Less adequate</th>
<th>Not adequate</th>
<th>Don’t know</th>
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</thead>
<tbody>
<tr>
<td>1. Maintain the current rules.</td>
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<tr>
<td>2. Strengthen manufacturing and oversight rules.</td>
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<td>3. Adapt manufacturing rules to reflect new manufacturing methods.</td>
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<tr>
<td>4. Include selected environmental requirements for manufacturing of medicines in line with the one health approach on antimicrobial resistance[^13]</td>
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</table>

[^13] The one-health approach is a holistic and multi-sectorial approach.
5. Increase Member State cooperation and surveillance of the supply chain in the EU and third countries.

6. Strengthen and clarify responsibilities of business operators over the entire supply chain on sharing information on quality, safety and efficacy.

7. Other (please specify).

Is there any other aspect you would like to mention, for example on the potential economic, social, environmental or other impacts of the outlined measures, or would you like to justify/elaborate your replies?

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Annex 3 to EU Guidelines to GMP defines specific requirements for industrially prepared RPs: in house manufactured RPs that are prepared from licensed starting materials (generator and kit) are exempted from the annex (all RPs prepared by a procedure other than a kit-type preparation are included).

GMP regulations should not apply to preparations using marketing authorised kits and generators as the authorisation is intended for the gained radionuclide to be combined with the kit. While partly recognized by legislation, this is not enforceable in all European countries. Since the safety of this procedure is proven by the marketing authorisation process and since such a compounding process is not prone to errors, GMP regulations only reiterate the marketing authorisation process.

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ENVIRONMENTAL CHALLENGES

While access to pharmaceuticals is a priority, it is also important that the environmental impacts of those pharmaceuticals are as low as possible. The environmental risk assessments (ERAs) is currently not taken into account in the overall benefit/risk analysis which influences the delivery of a marketing authorisation (MA) of a medicine. ERA can influence risk management measures. Yet, ERA results are not decisive in the MA process.
Q13 How would you assess the following measures to ensure that the environmental challenges emerging from human medicines are addressed?

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<thead>
<tr>
<th>Measure</th>
<th>Very important</th>
<th>Important</th>
<th>Fairly important</th>
<th>Slightly important</th>
<th>Not important</th>
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<tbody>
<tr>
<td>1. Maintain the current rules.</td>
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<tr>
<td>2. Strengthen the environmental risk assessment during authorisation of a medicine, including risk mitigation measures, where appropriate.</td>
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<tr>
<td>3. Harmonize environmental risk assessment by national regulators, including risk mitigation measures.</td>
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<td>4. Increase information to the health care professionals and the general public about the assessment of environmental risks of medicines.</td>
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<td>5. Allow companies to use existing data about environmental risks for authorisations of a new medicine to avoid duplicating tests.</td>
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<td>6. Other (please specify).</td>
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Is there any other aspect you would like to mention, for example on the potential economic, social, environmental or other impacts of the outlined measures, or would you like to justify/elaborate your replies?

800 character(s) maximum

Nuclear medicine physicians are well trained to the challenges of waste management and each nuclear medicine department across Europe follows national rules to ensure an efficient and safe radioactive waste management. Hospitals using radioisotopes have sufficient infrastructural and manpower resources to keep its radiation levels towards the environment within specified safe limits.

The EANM recognises the huge amount of work achieved by healthcare professionals and regulatory authorities at the national level to ensure safe waste management and believes that no further measures are needed at the European level with regards to ERA for in-house production of RP.

Q14 Is there anything else you would like to add that has not been covered in this consultation?

900 character(s) maximum

The regulatory framework for in-house RP production is not harmonized throughout Europe and has resulted in unbalanced access to innovative RPs based on national particularities. Future revision of the pharma legislation should consider the importance of in-house production of RP, ensuring quality and safety with harmonized standards and dedicated rules considering the particular needs for this specialty. Ideally a dedicated legal text that covers the in-house production of RP should be established in a way that it does not cover additional requests raised by the radioactive nature but clearly states alleviations from general industrial regime, no longer referring to existing annexes to the EU GMP guideline but should clearly define the appropriate measures needed for the preparation of a safe patient dose.

Q15 In case you would like to share a document that substantiates your replies, please upload it below (optional).

Only files of the type pdf,txt,doc,docx,odt,rtf are allowed

b864c74d-64e7-4e9a-a5a7-dbbf66edd493/EANM_attachment_to_Pharma_Legislation_consultation.pdf

Contact
EU-PHARMACEUTICAL-STRATEGY@EC.EUROPA.EU