

Public consultation on pharmaceuticals in the environment

Fields marked with * are mandatory.

About this consultation

This consultation is part of a study aimed at supporting the development of a European Union (EU) strategic approach to pharmaceuticals in the environment, and in turn at helping the EU achieve the United Nations Sustainable Development Goals, in particular SDG 6 ("Clean Water and Sanitation"), as well as objectives in EU legislation such as the "good status" objective in the Water Framework Directive. Adoption of the approach is to be followed by proposals for specific measures, as appropriate, which would be subject, as necessary, to full impact assessment.

Pharmaceuticals can enter the environment during their production, use and disposal. The need for a strategic approach has been prompted by concern about risks to the environment itself, and possibly to human health via the environment. Any actions to address those risks must also ensure that humans and animals can continue to benefit from the appropriate use of pharmaceuticals and that the competitiveness of EU healthcare systems is maintained.

This consultation aims to collect feedback and further information from stakeholders on their perception of the problem, the need for action, and on some of the actions that could be prioritised.

A **background paper**, provided with this questionnaire, describes 30 possible policy options grouped into 10 action areas. These have been identified on the basis of a review of the recent literature and preliminary consultation of stakeholders. You may wish to read the summary of the paper, or the paper itself, before answering the questions, but this is not essential.

Your responses will help the European Commission (EC) to formulate the strategic approach and prioritise areas for action. Thank you in advance.

Important note on the publication of answers

Please note that the responses received will be published on the EC's website, together with the identity of the contributor unless the contributor objects to the publication of personal data.

* 1. Please indicate your preference as regards publication of your contribution

- ☒ My contribution may be published, mentioning my name or the name of my organisation as well as country of residence

- ☐ My contribution may be published anonymously

Please note that, whatever option chosen, your answers may be subject to a request for public access to documents under [Regulation \(EC\) N°1049/2001](#). Please also read the specific privacy statement referred to on the consultation webpage.

About the respondent

*** 2. Are you replying as:**

- ☐ An individual
- ☐ An EU institution
- ☐ A national/regional/local public authority
- ☒ A company
- ☐ A business or workers' organisation
- ☐ An NGO, environmental or consumer group
- ☐ A research organisation
- ☐ Other

*** 3a. Please state your name or the name of your organisation (published)**

Cytotoxic Safety Council

*** 3b. Please provide your email address (*Please note that your email address will not be published regardless of the option chosen in question 1*)**

jimmullowney@cytotoxicsafety.org

*** 4. Is your company:**

- ☐ A large company (250 employees and over)
- ☐ A medium-sized company (50 to 249 employees)
- ☒ A small company (10 to 49 employees)
- ☐ A micro-company (less than 10 employees)

*** 6. Is your organisation registered in the Transparency Register of the European Commission?**

- ☐ Yes
- ☒ No

*** 8. What is your main field of activity or main area of expertise or interest?**

- ☐ Pharmaceuticals
- ☐ Human healthcare (including pharmacy)
- ☐ Veterinary care (including veterinary pharmacy)
- ☐ Water and waste water management
- ☒ Waste management
- ☐ Other
- ☐ No specific relevant expertise

***9. What is your main country of residence or activities? (published)**

- ☐ Austria
- ☐ Belgium
- ☐ Bulgaria
- ☐ Croatia
- ☐ Cyprus
- ☐ Czech Republic
- ☐ Denmark
- ☐ Estonia
- ☐ Finland
- ☐ France
- ☐ Germany
- ☐ Greece
- ☐ Hungary
- ☐ Ireland
- ☐ Italy
- ☐ Latvia
- ☐ Lithuania
- ☐ Luxembourg
- ☐ Malta
- ☐ Netherlands
- ☐ Poland
- ☐ Portugal
- ☐ Romania
- ☐ Slovak Republic
- ☐ Slovenia
- ☐ Spain
- ☐ Sweden
- ☐ United Kingdom
- ☒ Other

*** If other, please specify (published):**

United States

General questions on the issue

Awareness of the issue

***10. How would you describe your level of awareness of the issue of pharmaceuticals and the environment?**

- ☐ Nil (It hasn't been on my/our radar until now)
- ☐ Low (I/we have heard a bit about it)
- ☐ Moderate (I/we have heard a fair amount about it)
- ☒ High (I/we have been looking at it in detail)

*** 11. What has made you aware of the issue of pharmaceuticals and the environment? (Please mark all that apply.)**

- ☐ Seeing this consultation
- ☐ Reports in the press, on television or social media
- ☐ Campaign material from organisations such as NGOs
- ☐ Work
- ☐ Information from pharmacist/doctor/dentist/hospital/vet
- ☐ Talking with friends/family
- ☒ Other

*** If other, please specify:**

500 character(s) maximum

I have been in the Hazardous waste disposal industry for 30 years the most dangerous chemicals ever invented are actually drugs used to cure horrible diseases such as cancer. We know this and this document states it. .

*** 12. Has awareness of the issue made you do any of the following? (Please mark all that apply.)**

- ☐ Start taking unused medicines to the pharmacy (if you were not already)
- ☒ Stop flushing unused pharmaceuticals down the sink or toilet
- ☒ Talk to your pharmacist or doctor about the issue
- ☒ Talk to friends or family about the issue
- ☐ Change your consumption of over-the-counter (non-prescribed) medicines
- ☐ Other

*** 13. Do you see a connection between this issue and the development of antimicrobial resistance (AMR)? (Resistance means, for example, that existing antibiotics may no longer be effective against disease-causing bacteria.)**

- ☐ Yes
- ☐ No
- ☒ Not sure

14. What (other) aspect of the issue (of pharmaceuticals in the environment) concerns you most?

500 character(s) maximum

Cytotoxic chemotherapy drugs being excreted in the patients sweat saliva urine and feces contaminating family members homes septic systems and wells with chemicals known to cause cancer birth defects and miscarriages

Relative importance of actions

*** 15. How do you see the need for actions (including research) to address the risk from pharmaceuticals in the environment?**

A) For human pharmaceuticals

- ☐ Not necessary

- ☐ Necessary but not urgent
- ☒ Urgent
- ☐ No opinion

*** B) For veterinary pharmaceuticals**

- ☐ Not necessary
- ☐ Necessary but not urgent
- ☒ Urgent
- ☐ No opinion

If you wish to, please explain your answer:

1500 character(s) maximum

In the United States we have an agency called OSHA that looks at every drug all six or 7000 of them and how they react to humans, not fish, not birds. They have a list of 267 hazardous drugs for which there is no acceptable human exposure other than the patient. We took that list in a common sense approach and cross-referenced the FDA excretion data and found that 27 of the hazardous drugs are highly excreted very quickly in concentrations that are very hazardous to people exposed to them, they just happen to be drugs that are used to cure cancer and are cytotoxic. It is a crime that we allow these excretions to go into our sewer systems and that is well documented in the US. If you look at www.cytotoxicsafety.org there is a Ted talk that I did as well is a testimony from the former head of the international agency for research on cancer Dr. Peter Boyle on this topic

16. Please give each of the twelve possible actions below a score between 5 and 0, where 5 = high priority action, 3 = medium priority action, 1 = low priority action, 0 = not in favour). All actions must be scored. *Please note that the actions have been numbered to indicate which action areas they relate to in the background document, but are in most cases more specific.*

	5	4	3	2	1	0
* 1. More research to better understand the risks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
* 2. "Greener" design of pharmaceuticals, e.g. to make them more biodegradable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* 3. More stringent conditions for putting a pharmaceutical on the market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* 4. Cleaner manufacturing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* 5. Better risk mitigation, e.g. not allowing over-the-counter sale of pharmaceuticals that pose an environmental risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* 6. Better/more thorough post-market monitoring of pharmaceuticals in the environment and feedback to the regulatory process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* 7. (a) Better training for medical professionals, e.g. about pharmaceuticals that are less harmful for the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
* 7. (b) Better information for the public, e.g. about how to dispose of unused medicines	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

*7. (c) Smaller packaging sizes, to reduce unnecessary waste /disposal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
*8. Improved handling of waste pharmaceuticals	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*9. (a) Improved sewage and wastewater treatment	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
*9. (b) Improvements in livestock farming to reduce the use /emission of pharmaceuticals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

If you wish to, please explain your scoring or add brief comments on the listed actions, referring to their number.

1500 character(s) maximum

We have been researching this for 20 years, we know the bad actors we need to keep them out of our water systems and our families. Informing the public about this may be the only way to get action however this document has the framework to control discharge of cytotoxic chemotherapy drugs and has come short of stating that the urine and feces from patients undergoing certain cytotoxic chemotherapy treatments need to collect their human waste for a couple of days. It is insidious that we ignore the situation and that this document does not come out and specifically call for the elimination of cytotoxic chemotherapy human waste from our sewer systems. This is a link to a Ted talk that I did on the topic it is only 16 minutes and references your last document as well as the world health and other top scientist in the world. This is a call for action
<https://youtu.be/zX6OsvzZdOw>

17. If you are aware of any actions already being taken in your own country, please mention them and provide details.

1500 character(s) maximum

It is a crime to take the wrapper, the empty vial, gloves or anything that came in contact with the cytotoxic chemotherapy drug and put it in the trash. Yet we send people home filled up like a balloon to their families where up to 90% of it is excreted in the urine feces sweat and saliva. Chemicals that are known to cause cancer known to cause birth defects known to cause miscarriages. We know what causes cancer there is a list and 10% of the list are drugs that are used to cure cancer (international agency for research on cancer) the problem is bigger a patient going home on these drugs has the ability to cause birth defects in family members even before the children are born and this applies to men and women. This is all well documented and you know it

18. Please feel free to suggest further actions, in addition to those included in this questionnaire and the background document, or in your answer to Q.17, to address the impacts of pharmaceuticals in the environment.

1500 character(s) maximum

This document and the people preparing it have the ability solved the largest problem that we have, cytotoxic chemotherapy drugs in the environment. I agree it is not the only problem but is the easiest one to solve its well identified and as I say in my Ted talk we put a car in the moon we can collect pee in a cup. I have much more information on the website www.cytotoxicsafety.org and much of it is from this group. I would hope you take a common sense approach to the solution to drugs in the water and that would be identify the worst first and don't put it down the drain even if it sounds gross to collect human waste for a couple of days after infusion we know how to do this is very simple and in the US we have an industry that is very well-versed in controlling very hazardous chemicals even ones like cytotoxic chemotherapy drugs that we do not want to burn.

I urge you in your objective option 23 to include human pharmaceutical waste from patients undergoing certain cytotoxic chemotherapy drug treatments.

As my friend Dr. Christian Daughton said to me "20 years from now we will look back on this and say what the @##\$% were we thinking". He is called for the collection of human waste containing cytotoxic chemotherapy drugs for many years.

19. We invite you to suggest information sources on pharmaceuticals and the environment (titles of publications and web links are appreciated) in order to increase the evidence base on the topics addressed in this questionnaire.

1500 character(s) maximum

If you go to www.cytotoxicsafety.org we have published many documents from around the world and including bio intelligence and we reference your work all the time. I am happy to discuss in detail as I have with some of the most prominent scientists in this field in the world. Once again I urge you to watch Dr. Peter Boyle give testimony to the Rhode Island Senate on this topic, he is the first video on www.cytotoxicsafety.org my Ted talk is the second one.

The world health called for the collection of human waste containing cytotoxic chemotherapy drugs in 2013, that document is also on the website. We are currently working with a group out of Denmark that is patented a very simple collection system for human waste. We have a collection system that is being trialed with a slightly different approach as I feel trying to incinerate cytotoxic chemotherapy drug in the water solution does nothing but make it airborne. Our process is fight chemistry with chemistry and is very easy to use and simple.

I urge you again to take action as you do have the power to do the right thing. I've talk to every major cancer hospital in the US and they need someone to tell them to do this, the management is not going to volunteer and without a mandate there will be no reimbursement.

The World Health Organization states that the cost of medical waste is the responsibility of the healthcare system and they include the collection of cytotoxic human waste in that statement.

If you wish to submit additional documentation (up to three pages), please upload your file here.

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Contact

ENV-PHARMA-CONSULTATION@ec.europa.eu