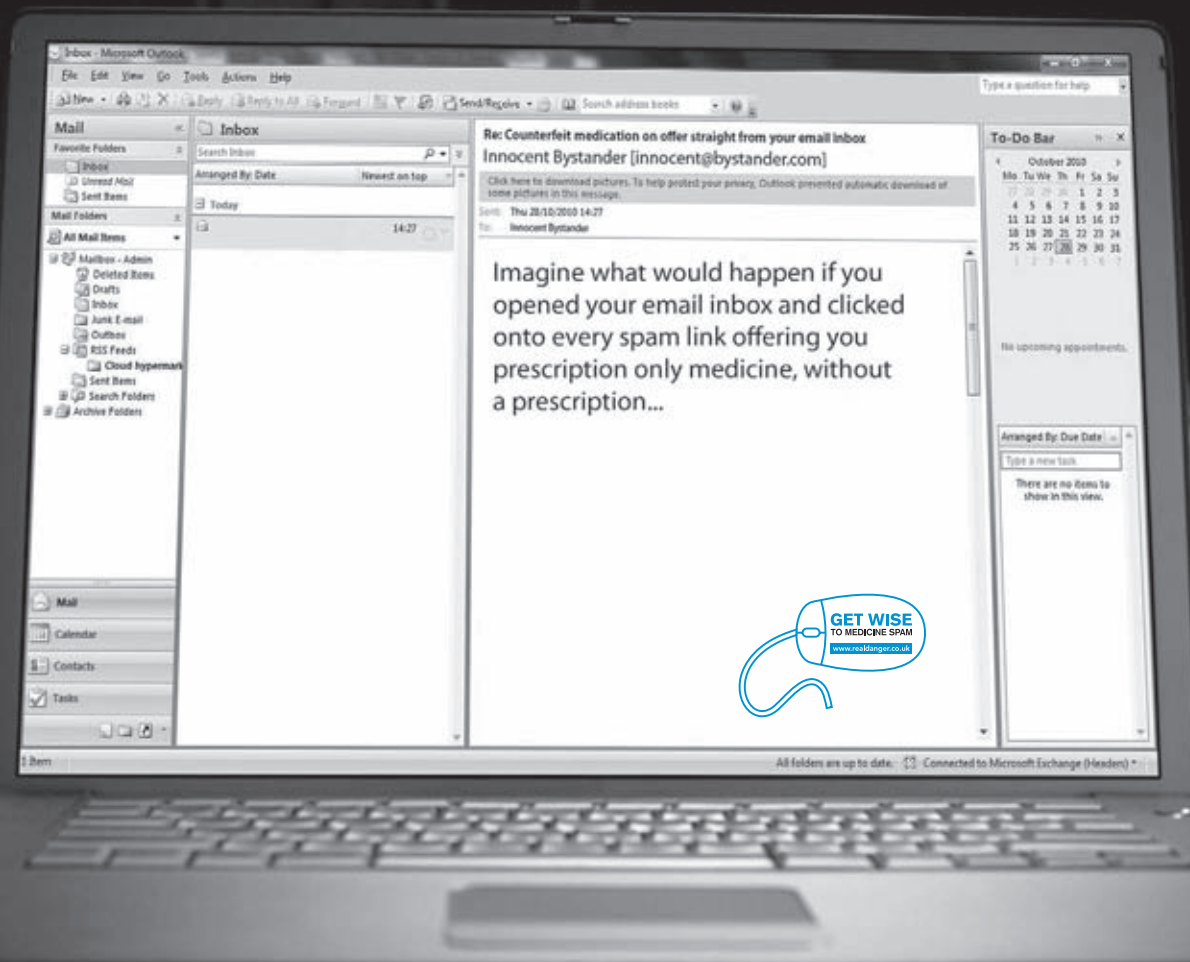


YOU'VE GOT LIFE-THREATENING MAIL

AN INVESTIGATION BY PFIZER, MHRA & PARTNERS



The spam donor project is a patient safety campaign developed and funded by Pfizer Limited in collaboration with partner organisations in the United Kingdom. Job bag number: CA000969 / Date of prep: March 2011





YOU'VE GOT LIFE-THREATENING MAIL FOREWORD

SPAM EMAILS THE RISKS



HEALTH

Products containing unsafe and untested ingredients, with no information supplied on dosage advice or potential side effects which could pose an extreme risk to someone's health.

FINANCIAL

Possibility of credit card cloning upon purchase of medicines which could place someone in a vulnerable financial situation.

PERSONAL

Viruses are used to infect PCs and copy private contact details leaving people at risk of being targeted by more spam emails and the serious threat of identity theft.

"Spam – or unsolicited mail – is a common way fraudsters target members of the public with black market medicines. In fact, nearly 25% – that's 15 billion messages – of all spam emails advertise medicines.¹

It's a lucrative and sophisticated industry with spammers now engaged in 'next generation' ways to deceive the public, using popular social media channels like Twitter and Facebook. Spam is a cheap, easy way to reach millions of people. Even if only a small percentage of us click onto spam, the criminals are in profit – latest estimates put the value of the industry at \$75 billion.²

Spam has the potential to damage our health, financial security and even our identity. As a doctor, the health risks concern me most. Illicit treatments sold through spam can be made up of ingredients that haven't been approved,³ which means their safety profile hasn't been tested and side effects are yet to be established. Many of these products are sold without the purchaser receiving a diagnosis from a doctor and contain no health advice, guidance or Patient Information Leaflets (PIL).³ Not only is this illegal, it means the user has no medical information on the ingredients, dosage instructions or potential side effects. The products often arrive poorly packaged³, which flaunts legal requirements and increases the risk of contamination – especially if the medicines are made up of fake or dangerous ingredients.

Looking beyond the serious health risks, the websites themselves are a hotbed of danger. Loaded up with software, these unregulated sites monitor and track visitors; expose their email address as active; increase the risk of further spam; and make them vulnerable to having sensitive personal information stolen. Once a purchase is made, it is possible that credit card details will be cloned, leaving the user exposed financially and at risk of identity theft.⁴

To highlight all these risks, Pfizer has worked with the Medicines and Healthcare products Regulatory Agency (MHRA), the Patients Association, the Royal Pharmaceutical Society (RPS), HEART UK and Men's Health Forum to launch this campaign.

The campaign details an investigation which looks at the impact on those being targeted by medicine-related spam... and their reaction to the results. Age, location, gender or medical history, it doesn't matter – spammers don't discriminate. Once an email inbox has been targeted, it could simply be a matter of time before the ease of purchasing online lures the recipient to buy a prescription only medicine from unregulated online sources. A decision which could be seriously damaging to their health and their pocket."



Dr Hilary Jones
GP & TV Health Broadcaster

AN INVESTIGATION INTO SPAM



Imagine what would happen if you opened your email inbox and clicked onto every spam link offering you prescription only medicine without a prescription...

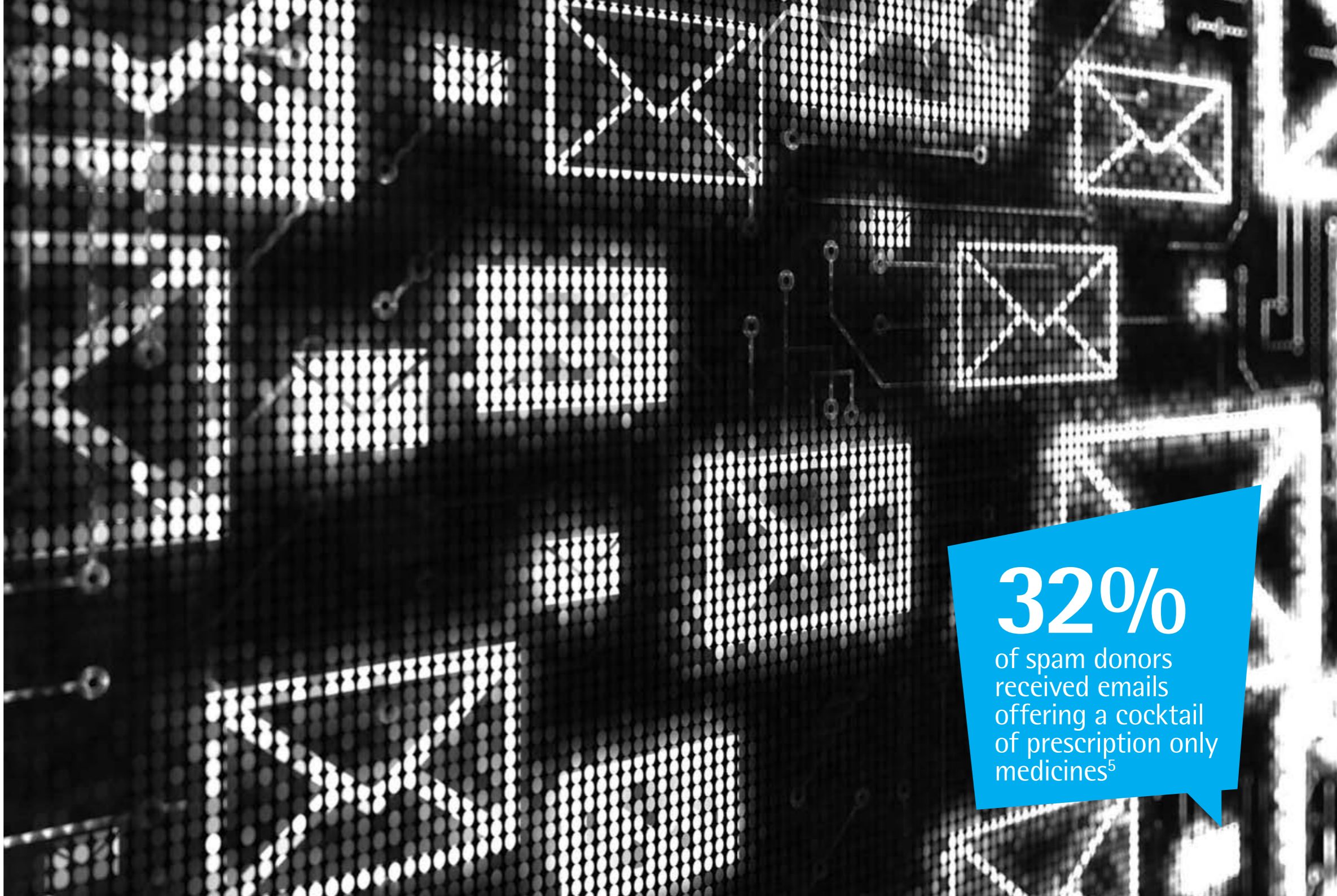
In order to find out, an investigation into the truth behind the spam was conducted.

The study involved 65 members of the public who volunteered to donate all their spam emails to the security teams at Pfizer and the MHRA. These 'spam donors' come from all walks of life, age groups, and locations across the country.

Almost a third (32%) of spam donors received emails offering a cocktail of prescription only medicines,⁵ from life-saving to so-called lifestyle treatments. These emails were analysed to determine the sender's origin. Linked websites were visited and a variety of medicines were purchased and then tested in a laboratory.

By combining this with knowledge of the spam donors' state of health, we were able to collect a number of case studies which would allow us to assess and illustrate the serious potential risks which people could be taking with their health.

Their stories act as a cautionary tale...



32%
of spam donors
received emails
offering a cocktail
of prescription only
medicines⁵

TESTING RESULTS



Purchased treatments were tested by either Pfizer or MHRA laboratories. The majority of products were found to be either counterfeit or sub-standard, containing too much or too little unapproved or undeclared ingredients.³ The findings reveal a multitude of dangers and expose the underhand ways of the scammer...

Purchases revealed...

- ▶ Two 'weight loss' products contained undeclared anti-obesity treatments⁶ (undeclared meaning it wasn't stated what the product contained), one of which contained an ingredient that was withdrawn from the EU on safety grounds in 2010.⁷ There were long running concerns about this treatment and the increased risk of heart attacks and strokes associated with it.⁷
- ▶ Among numerous unapproved and sub-standard products (where incorrect ingredients are used to make up a 'medicine'), two counterfeit products were discovered.⁶ One contained a potentially dangerous cocktail of medicines,⁶ especially if it was used in conjunction with other medicines or alcohol. The other claimed to be a weight loss product which is banned in the UK and was actually made up of 15.5mg of another banned obesity medicine and used caffeine as a bulking agent.⁶

- ▶ Several products contained undeclared ingredients. For example, one product included the active ingredient of an erectile dysfunction medicine⁶. This could have serious effects if the user then took other medicines that interacted with it, such as nitrates (used by some people with angina) or if the user had a specific allergy to that particular medicine.⁸
- ▶ An erectile dysfunction product was sold in doses ranging from 25mg to 150mg.¹¹ The genuine version of this medicine is only manufactured and licensed in doses of 25mg, 50mg and 100mg – a higher than recommended maximum dose could be potentially dangerous.⁸
- ▶ All products arrived in little or no appropriate outer packaging.³ Some were wrapped in sheets from a calendar, newspaper or just tin foil. This directly contravenes UK and EU regulatory guidance on providing clear and unambiguous identification of medicines and the conditions for safe use.⁹ Medicines are packaged in a certain way to provide stability, to ensure that they are safe up until their expiry. Packaging and blister packs are important for maintaining hygiene and safety.
- ▶ No Patient Information Leaflets (PIL), medical or dosage information were included so users have no guidance/advice on what, when or how much of a medicine to take.¹² Patient Information Leaflets also outline who cannot take the medicine, e.g. if someone is pregnant or breastfeeding. All medicines are required by European and UK law to be accompanied by a PIL setting out comprehensive information which is accessible to and understandable by those who receive it, so that they can use their medicine safely and appropriately.¹⁶
- ▶ A pack of sedatives was purchased for £99⁶ which is significantly higher than the UK pharmacy recommended retail price (RRP) for this product.⁶

The spam websites and emails revealed...

- ▶ Despite FAQ sections proclaiming 'Our team will be happy to clarify your concerns or explain whatever you want to know about the medicines that we offer', no email addresses or contact phone numbers are given.¹¹ Users are completely unable to follow up if a product isn't delivered (which happened on two occasions) or if they need any information. In one instance, only a postal address and a mocked up image of an office/laboratory building was provided. This was fictitious.¹¹
- ▶ No websites asked any health questions, required a prescription or requested any information before a purchase could be made.¹² There is a serious risk from bypassing the healthcare system – patients need expert guidance before a medicine is prescribed to ensure it is right for them. Without this advice, people are effectively taking unknown medicines, in unknown doses and with no knowledge of side effects.¹⁰
- ▶ In some cases, once a purchase was made, the website recommended other medicines the user might be interested in, clearly encouraging self-diagnosis and unnecessary purchases.¹²
- ▶ The majority of websites included quotes and images of people claiming to be doctors, as well as testimonials from previously happy customers,¹² to falsely reassure users of their authenticity and lure them into making an uninformed purchase.



- ▶ Sites fraudulently display a number of logos to promote authenticity including the Royal Pharmaceutical Society's previous logo (RPSGB) and from relevant regulatory bodies such as the Food and Drug Administration (FDA).¹¹ They also indicate they use USPS, FedEx, UPS and EMS for shipping,¹¹ designed to persuade users that they are a legitimate, regulated online pharmacy.
- ▶ Spam websites infecting computers with viruses were commonplace.³ These 'botnets' or huge networks of computers that have been infiltrated and taken over are usually controlled by just one spammer. They are then able to manipulate the 'behaviour' of these computers to copy contact details, leaving users vulnerable to future targeting.¹³
- ▶ With all spam websites, once a purchase is made, the user is extremely vulnerable to their credit card details being cloned.¹⁰ Despite the use of Visa and Verisign logos, financial protection software isn't used by spammers. If credit card details are cloned, identity theft is a secondary risk,¹⁰ potentially leaving the user in a frightening financial situation.
- ▶ The majority of spam emails themselves were quite bare, but used language designed to lure and encourage people to visit the site, such as 'Guaranteed quality of erectile dysfunction pills', 'Fast delivery' and 'Low prices'¹⁴ and 'Our philosophy is simple: to provide people with the best medicines at discounts'.¹⁴





DAWN SPAM DONOR

01



Age: 46

Location: Aberdeen

Dawn currently takes a variety of medicines to treat angina and acid reflux

Dawn says,

- ▶ "I suffer from a heart condition called angina, which causes pain in my chest, and can spread to my neck, throat and arms. I have to take permanent medication to keep it under control."
- ▶ "I also suffer with acid reflux, which causes pain and burning in my chest, often after eating or exercising. The combination of these two conditions can make life really difficult for me at times."

'SPAM DRUG'

Sold as 50mg (30 pack)⁶ of a schizophrenia, bipolar disorder and depressive behaviour medicine.¹⁵ Illegally distributed with no patient information.

'SPAM DANGER'

- ♦ Contained too much active ingredient meaning there would be a possibility of overdose.¹⁵
- ♦ Without a PIL, patients would not know that this medicine should be used with caution in patients with heart conditions as it can induce hypotension.¹⁵

Comment from RPS

"It is hugely worrying that prescription medicines to treat depression and mental illness are available from illicit websites. There are serious issues here, with the wrong diagnosis being made and conditions worsening because they are not treated properly.

Buying from spammers means appropriate advice is not provided – Patient Information Leaflets are missing and patients with queries will not be able to go back to the vendor. Purchasing medicines is not the same as buying shoes; prescription medicines are potent and their use requires monitoring by a healthcare professional."

Comment from Jules Payne

CEO of Heart UK – The Cholesterol Charity

"I can understand why people turn to the internet, but HEART UK is concerned that people are unaware of the dangers in doing so, especially if they have existing conditions, as Dawn has. HEART UK would urge people to abort the internet purchase of prescription only medicines without a prescription.

The General Pharmaceutical Council (GPhC) has a list of regulated pharmacies that are GPhC registered, so people can be sure they are purchasing safe and genuine medicines online."

spam emails received

228

offered medicine

9%

DR HILARY JONES' OPINION

"By turning to the internet and avoiding the healthcare system, someone like Dawn could potentially put themselves at risk from fake or unapproved products or simply a medicine dangerous for their condition."

"Dawn has two chronic conditions and is being offered treatments online which could interact adversely and dangerously with some of the medicines she is already taking, leading to harmful consequences. The product she was offered should be used with caution by those with heart conditions as it can induce hypotension.¹⁵"

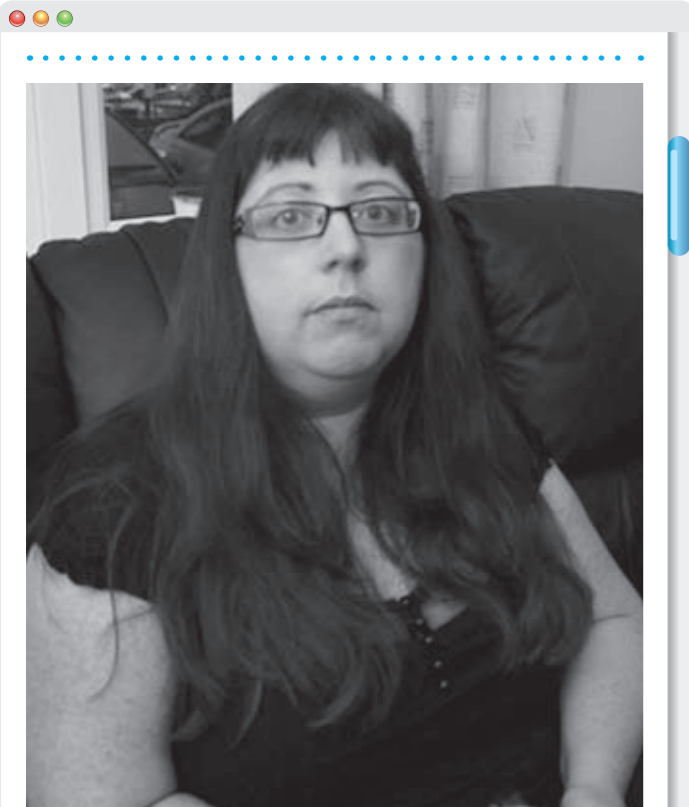
"During the purchasing process, not one of the websites asked the user any background health questions and none required a prescription, meaning if someone like Dawn bought a medicine, there'd be no guidance on the potential effects on her condition. Upon delivery, none of the products contained the legally required Patient Information Leaflet or dosage instructions, leaving the user vulnerable to taking too much or not enough and not knowing whether it would in fact be safe at all, with potentially seriously damaging consequences."

"Dawn's conditions cause her a lot of pain and discomfort, which can be incredibly debilitating. It could be highly tempting for Dawn to buy medicines online to manage this. However, having to return regularly to her GP for a repeat prescription is a way for her GP to check on Dawn's progress and monitor her medications and dosing. By ordering online, Dawn would miss out on this vital monitoring process."

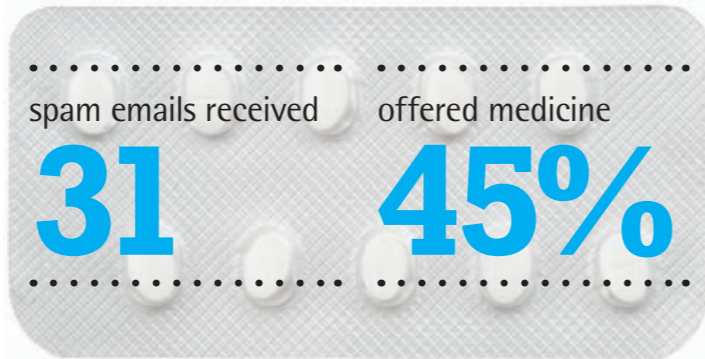


ELAINE SPAM DONOR

02



Age: 34
 Location: Weymouth
 Occupation: Learning Mentor –
 Secondary School



Elaine says,

- ▶ "I have a condition called endometriosis, which causes cells that normally line the womb to grow outside the womb in other parts of the body. It causes recurring pelvic pain, painful periods, extreme tiredness and headaches.¹⁸ It is also linked to infertility. I visit a pain clinic on a regular basis (every eight weeks), and generally visit my GP every six months."
- ▶ "I have problems with my periods, which are extremely painful and the pain can last for days or weeks at a time. I also suffer with tiredness and lack of energy, which can make working, particularly with children who need lots of energy and support, really hard at times."
- ▶ "I was taken aback by the contents of the spam I had been sent, particularly the presence of drugs for angina as it's a condition within my family."

- ▶ It's concerning that I was targeted with drugs for migraines, pain relief and weight loss: all conditions which I've experienced and could have easily purchased treatments online if I felt desperate enough, or perhaps didn't have the time to see my GP."
- ▶ I have gained weight recently and I'm often frustrated by the claims made by the weight loss treatment spam emails. They are often positioned as 'miracle cures' which could tempt vulnerable people like me to try an online treatment."

'SPAM DRUG'
 Sold as 150mg (30 pack)⁶ of a smoking cessation treatment.¹⁹

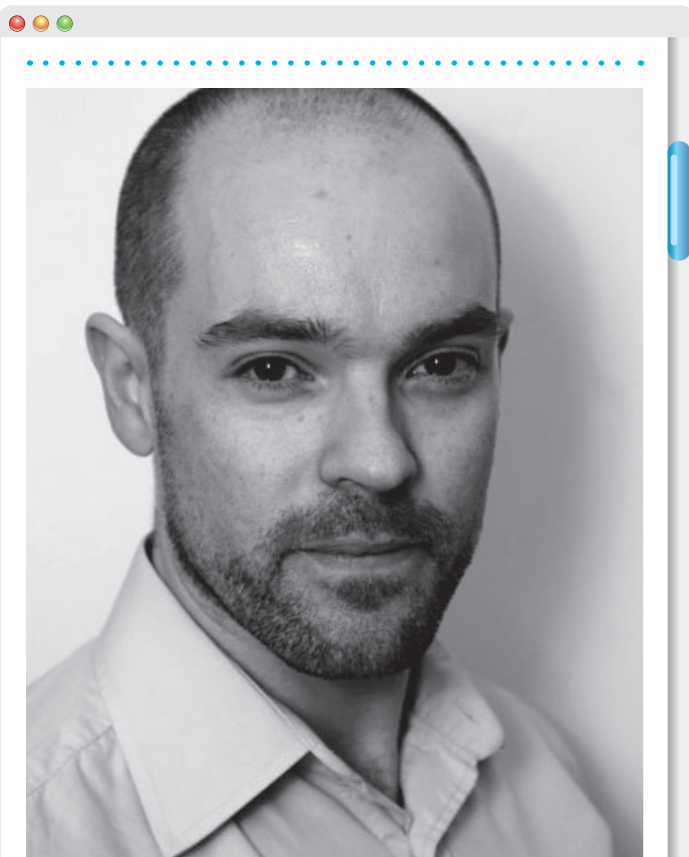
'SPAM DANGER'
 ♦ No PIL which would outline some of the serious side effects associated with this product (if not taken appropriately).





GARETH SPAM DONOR

03



Age: 32
 Location: Manchester
 Occupation: Housing Officer

Gareth says,

- ▶ "I don't have any specific health concerns at the moment but I do worry about things like hair loss. I use the internet for everything these days and it can sometimes be an easier way to get information without having to take time out and make an appointment with a GP, particularly if you just need instant advice or reassurance about a concern."
- ▶ "As a man, going to the doctor for something like hair loss can be a bit embarrassing, as you think it's a bit of a trivial condition to be bothering your doctor about. I can see how men could be tempted to just try something online and bypass that embarrassing conversation. I was surprised to hear the disease areas I was targeted with; erectile dysfunction especially. I guess that's another one of those conditions that can be difficult to talk to your doctor about."



DR HILARY JONES' OPINION

'SPAM DRUG'

Sold as medicine for hair loss.⁶

'SPAM DANGER'

- ◆ Illegally distributed, unapproved generic copy.⁶
- ◆ No PIL: All medicines are required by European and UK law to be accompanied by a PIL, so that they can be used safely and appropriately.^{10a}
- ◆ Without a PIL, patients would not be aware of important product information highlighting potential side effects. In addition, this medicine should not be taken or handled by women who are pregnant as it can harm unborn children.²⁰

"When it comes to medicines and diagnosis, a face-to-face consultation is always best. However there are legitimate online health services such as www.manmot.co.uk* where men can speak to a real GP online in total confidence.²¹ No test purchases, including Gareth's, arrived in appropriate packaging⁶. In fact, many of them had no exterior packaging, often just arriving in an envelope. Sometimes the products were wrapped in desk calendar sheets, newspaper, wrapping paper or tin foil."

* www.manmot.co.uk is an online surgery funded by Pfizer and is supported by Diabetes UK, FPA, HEART UK, Men's Health Forum, National Obesity Forum, Relate and Sexual Advice Association.

Gareth's reaction to medicine testing results

"I find it shocking to be honest, that something like this can make its way into my inbox as I'm sure some people would be tempted to buy this type of product without knowing any of the risks."

Comment from MHRA

"Websites masquerading as legitimate online pharmacies are run by criminals first and foremost to commit fraud.¹⁰ During testing, the MHRA discovered five viruses that could have affected Gareth's or one of the donors' computers.³ By visiting these websites, a user leaves their computer vulnerable to potentially fraudulent software used by the spammers. This software monitors and marks their landing on a website with a 'calling card' – this means their email address is visible as active and can be added or sold on to lists of names to continue to be targeted.⁴ If Gareth or anyone else were then to proceed with making a purchase, there is also a potential for credit card cloning or identity theft."



IAIN SPAM DONOR

04



Age: 42
 Location: Chester
 Occupation: Programme Officer

Iain says,

- ▶ "I have Ankylosing Spondylitis, which is a form of inflammatory arthritis. It's a chronic, progressive condition which means that there is no cure and it will get worse over time. As there is no cure, the treatment I'm taking is designed to reduce the inflammation and pain as much as possible.²² I have an injection every two weeks and take anti-inflammatory tablets on a regular basis."
- ▶ "I was really surprised to hear that I had received emails relating to pain relief medicine (which I take on a regular basis) and glaucoma, as we have a history of the disease within my family. With a condition like arthritis, which is incredibly painful, you can sometimes feel quite fed up and I can imagine that people in this situation could be tempted to just order online for the convenience and hope that something might help."



- ▶ "I think it's disgusting and shocking that these companies have access to personal email details and prey on people who are in pain and are desperate. I'd like to see the whole business of spam emails brought under regulation. Not only do the companies bombard people's inboxes with unwanted information, they also offer potentially dangerous products to people who might not be aware of the risks involved."

'SPAM DRUG'

Sold as herbal penis enlarger pills. Tests proved it was NOT herbal but contained a small dose of an undeclared active ingredient⁶ which is found in an erectile dysfunction (ED) prescription only medicine. The product was not manufactured to appropriate standards.

'SPAM DANGER'

- ◆ Penis enlargement is not the same as ED. ED is a medical condition that requires advice from a healthcare professional. ED medicines should only be taken if prescribed by a GP and obtained via legal and legitimate pharmacies as it is not suitable for everyone. There is a health risk for men who have conditions which make this treatment unsuitable e.g. certain cardiovascular disorders.⁸

Comment from Men's Health Forum

"Many men are reluctant to seek help from a doctor, especially for 'below the belt' problems, and so they are particularly vulnerable to online drugs scams. The products they receive may be useless or dangerous. Men who have not been seen by a doctor are also at risk because their condition has not been properly diagnosed and they will therefore not receive the correct treatment. For men with ED, for example, this can potentially be serious as clinical evidence indicates that erection problems can be an early-warning sign of heart disease. Men's health is poor enough already without the additional hazards posed by dodgy drugs bought from dodgy websites."

DR HILARY JONES' OPINION

"In addition to treatments for pain and arthritis, Iain's spam contained treatments for erectile dysfunction (ED) and additional offerings such as a 'herbal penis enlarger'. ED is one of the most common sexual problems affecting around 2.3 million people in the UK.²³ Currently only 10% of men receive treatment for the condition, yet 40% look for help online.²⁴"

"When tested, the penis enlarger product was identified as containing the active ingredient in an erectile dysfunction medicine.⁶ It is important that ED medicines are accessed safely and via the legitimate healthcare system as ED can be a symptom of more serious underlying health concerns such as heart disease or diabetes. In addition, ED medicines can be contraindicated for certain people e.g. people with heart problems. Therefore it is important that those with the condition only take medicine that their GP has prescribed for them."

"If you have a chronic condition like Iain or have experienced ED you should always discuss this with your healthcare team rather than looking for alternatives or additional treatments online."

BREAKING NEWS!

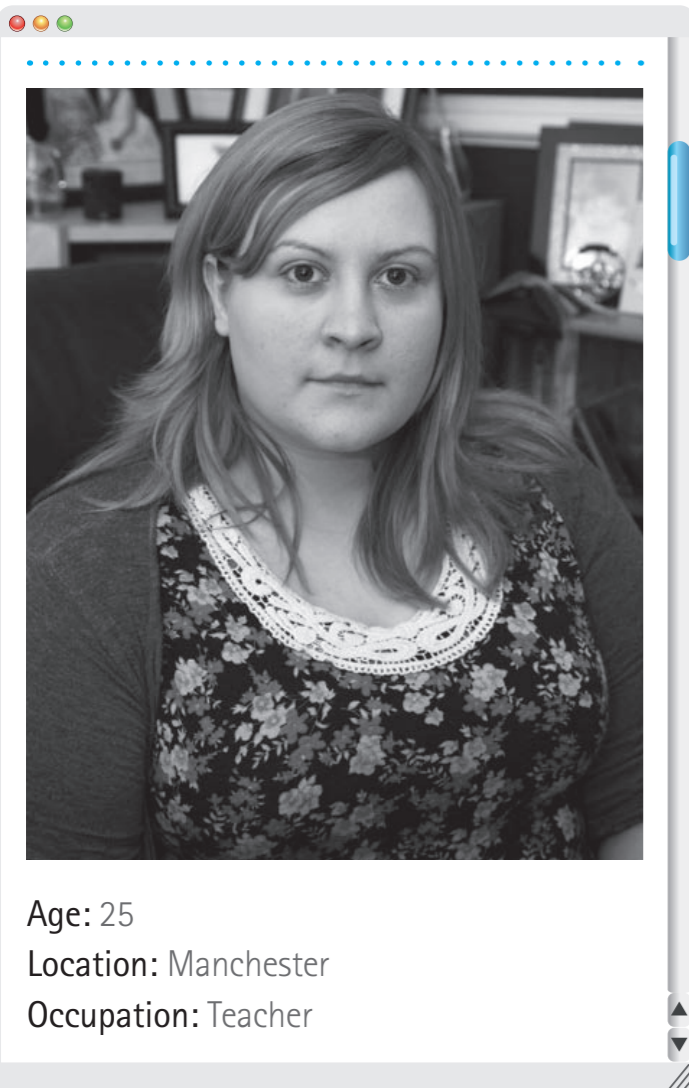
At the same time this **'spam donors'** investigation was underway, Microsoft took action against Rustock, an international network of virus-infected computers. Rustock had for years generated billions of spam emails per day, promoting unlicensed online pharmacies and cut-price impotence pills. On Wednesday 18th March, 2011, Microsoft's action inactivated the Rustock **'botnet'**. It is estimated the Russian Rustock organisation may be responsible for **20-40% of worldwide spam.**³¹





JENNIFER SPAM DONOR

05



Jennifer says,

- ▶ "As a teacher, I'm often under pressure with targets. Long hours and constant pressure can leave me with headaches and feeling quite drained at times. Living on a tight budget can also be tough. It's not always possible to get the right nutritional foods and you can sometimes end up living on convenience foods, which can make you feel sluggish, put on weight and generally not feel your best."
- ▶ "I shop on the internet all the time for things like cosmetics, clothes and CDs. I have to admit I would try and self-diagnose using the internet if I was feeling unwell before I went and got checked out by my GP, purely for convenience."
- ▶ "It does scare me the fact that counterfeit drugs are so readily available online. If I didn't know better and was looking for a quick, convenient option I could be tempted into purchasing, especially if I recognised a treatment advertised was the same as the one I was taking. That could easily be confusing and may lure people into a false sense of security."

'SPAM DRUG'

Sold as 120mg (30 pack)⁶ of a weight loss medicine. Contained an ingredient which is in clinical trials and not licensed in the UK.^{6,25}

'SPAM DANGER'

- ▶ Safety profile and efficacy still to be established – side effects unknown.²⁵

DR HILARY JONES' OPINION

"Online buying means a product purchased could have no active ingredient or be completely fake. Jennifer's test results on a weight loss product revealed it contained an ingredient which is still in clinical trials, therefore its safety profile is yet to be established and side effects are unknown.^{6,25"}

spam emails received

6

offered medicine

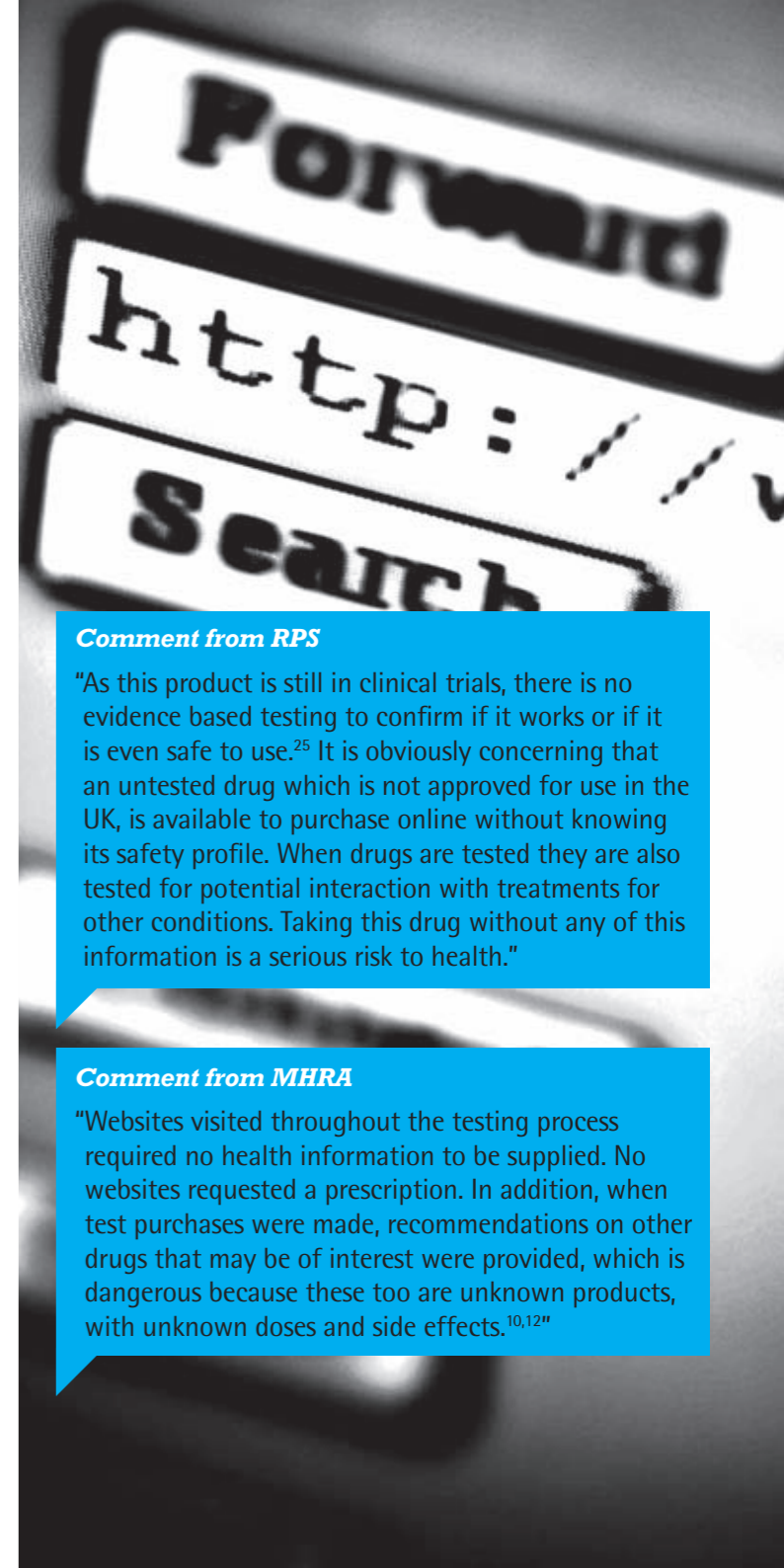
17%

Comment from RPS

"As this product is still in clinical trials, there is no evidence based testing to confirm if it works or if it is even safe to use.²⁵ It is obviously concerning that an untested drug which is not approved for use in the UK, is available to purchase online without knowing its safety profile. When drugs are tested they are also tested for potential interaction with treatments for other conditions. Taking this drug without any of this information is a serious risk to health."

Comment from MHRA

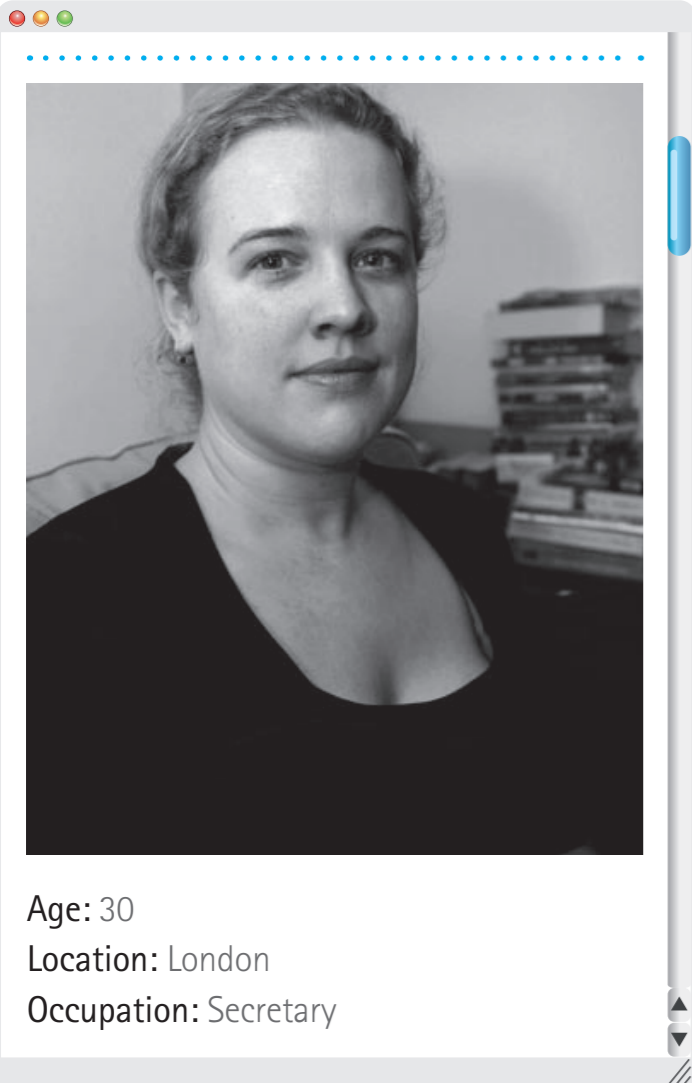
"Websites visited throughout the testing process required no health information to be supplied. No websites requested a prescription. In addition, when test purchases were made, recommendations on other drugs that may be of interest were provided, which is dangerous because these too are unknown products, with unknown doses and side effects.^{10,12"}





KATHARINE SPAM DONOR

06



Age: 30
Location: London
Occupation: Secretary

Katharine says,

- ▶ "I'm not on any prescription medicine. However, I do suffer from a dust allergy. I often buy allergy relief tablets although they can be really expensive, so I usually look for the cheapest solution."
- ▶ "I use the internet a lot to buy things like clothes and music. It's often a cheap and convenient way to shop, especially when you work full time and don't always have time to pop to the shops. I was almost entertained by the contents of the spam I had been sent; some of it can be so convincing! If I had any health concerns I'm sure I would go to my doctor, but the fact that they are sending you emails related to everyday conditions like asthma and weight loss is concerning, as it could easily convince you they are genuine treatments, especially if you need a quick easy solution."



DR HILARY JONES' OPINION

"Katharine's test purchase was a product which is banned in the UK.²⁶ This product contained an ingredient that was withdrawn from the EU in 2010 due to safety concerns."⁷

"Whilst Katharine could probably find her current allergy treatments for sale online, there is no guarantee they are the real thing. They can include too much, too little or none of the active ingredient they should include – or worse, banned ingredients, meaning they could offer no benefit and could be harmful."

'SPAM DRUG'

Sold as 37.5mg (30 pack) of a slimming product.⁶ Banned medicine in the UK.²⁶ Contained an ingredient which has also been withdrawn from EU market on safety grounds.

'SPAM DANGER'

- ▶ Can increase the risk of heart attacks and stroke.⁷

Comment from RPS

"The medicine as advertised is known to cause heart problems and has been banned in the UK for some time because of these risks.^{7,27} However, the actual ingredient has also been withdrawn so there are two huge dangers here. Firstly, the ability to access treatments which have been banned from use in the UK on safety grounds and secondly, these products then contain different substances to what they claim and substances which have also been banned in the UK because of safety concerns."





MICHELLE SPAM DONOR

07



Age: 39

Location: Leicester

Occupation: Staff Nurse

Long term health condition(s): Asthma

Michelle says,

- ▶ "As a staff nurse I have a very busy and demanding job and it can sometimes be tough finding the time to worry about my own health when dealing with very sick patients on a daily basis."
- ▶ "I suffer from asthma so have a regular prescription for my inhaler and generally check in with my GP every two months to pick up a prescription. Finding the time to relax and eat healthily is important but difficult at times to balance with a demanding job."
- ▶ "I think pharmaceutical spam preys on people like me who are in busy jobs and limited on time, and hopes to lure them with fast easy answers. I have to admit that if the drugs on offer looked like they were from a reputable source then I could potentially be persuaded to purchase them. Often it's more convenient and cheaper to buy online than go through a GP or pharmacy and these are two factors which would definitely influence my decision to buy."

spam emails received

183

offered medicine

1%

'SPAM DRUG'

Sold as 120mg (30 pack) medicine for anxiety disorders. Illegally distributed with no patient information.^{3,6} Testing results revealed the product as counterfeit and containing undeclared ingredients.⁶

'SPAM DANGER'

- ◆ Counterfeit medicines are potentially lethal as they can contain incorrect ingredients or the wrong doses of ingredients. Unless a medicine is a genuine product from the pharmaceutical manufacturer, anyone taking it puts themselves at a high risk of harm, or even death.¹⁰

DR HILARY JONES' OPINION

"When prescription only medicines are seemingly available online, without needing a prescription, it can be tempting to bypass the healthcare system, but people such as Michelle may then be putting themselves at risk from counterfeits."

"Michelle's test purchases included a counterfeit.⁶ Counterfeit medicines can contain too much, too little or none of the active ingredient they should include."

Comment from RPS

"People can become dependent on sedatives such as these so it's not intended for long-term use or suitable for everyone. If the strength is inaccurate and changes on each purchasing occasion, there is the very real threat of overdose, which could be fatal. Different levels of ingredient would mean a huge and unknown difference in effect.²⁸"

Comment from MHRA

"Counterfeit medicines are potentially lethal because you just don't know what you're taking. The dosages could be either too high or too low, contain no pharmaceutical ingredients or a totally different ingredient to that stated including toxic or other non-medical components e.g. rat poison or brick dust. Ultimately counterfeit medicines are dangerous because there are no assurances about the safety and quality of these products or whether they are appropriate for you. People should be aware that not only are the dangers of counterfeit medicines very real, but also that they're fuelling an illegal and harmful criminal market.¹⁰"



RUSS SPAM DONOR

08



Age: 56

Location: Hereford

Occupation: Residential Support Officer

Medication / alternative therapies: Used acupuncture for a long term back problem

Russ says,

- ▶ "I've suffered with back problems for over 30 years, which causes me a lot of pain and discomfort. It can be really restrictive and when my back goes into spasm it can be difficult for me to work or do things with my family."
- ▶ "I don't tend to see my GP that regularly unless there is something specifically worrying me. It's probably as little as once a year. I sometimes speak to my pharmacist, but only if I have a cold or something like that. I haven't managed to find a long-term solution for my back pain, other than acupuncture; therefore, I guess I am open to trying alternative treatments and new approaches."
- ▶ "I'm usually not surprised to receive spam emails, especially for things like erectile dysfunction, as that's pretty common. In fact I find most of those quite amusing and don't take them seriously. However, I'm quite shocked that you could receive emails for breast cancer and schizophrenia drugs; that's pretty hardcore and worrying if they got into the wrong hands."
- ▶ "Living with constant back pain can make you pretty desperate at times and you'll wish anything would just take the pain away so you can get on with things. I guess these websites prey on people in that desperate situation."



DR HILARY JONES' OPINION

"It's interesting to see that Russ has been offered treatments for breast cancer, an issue which has been recently highlighted in the media since men have been inappropriately purchasing a breast cancer medicine as an unlicensed solution to treat enlarged breast tissue (commonly referred to as 'man boobs' or 'moobs'). Whilst such medicine is suitable for certain types of breast cancer in men³⁰, this is certainly something that should never be used outside of its licence and certainly not sought online."

"In addition, Russ suffers from chronic pain and could be tempted to take anti-depressants if he was feeling down. His test purchases arrived with inappropriate packaging (tin foil). This directly contravenes UK regulatory guidance on providing clear and unambiguous identification of medicines and the conditions for safe use."³¹

Russ' reaction to medicine testing results

"It doesn't surprise me that these so-called medicines are dodgy to say the least. They're just out there to make money. You're obviously much safer to just go to your pharmacy or GP to get hold of the real thing."

spam emails received

83

offered medicine

13%

'SPAM DRUG'

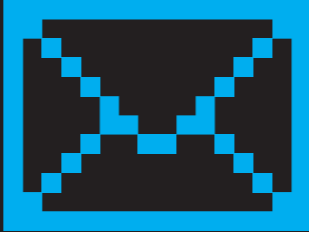
Sold as 7.5mg (30 pack) of a schizophrenia and bipolar disorder medicine.^{6,29}

'SPAM DANGER'

- ◆ Illegally distributed, unapproved generic copy with incorrect dose of active ingredient.⁶
- ◆ No PIL¹⁰ (a legal information requirement) which would outline that this medicine can have severe side effects if the patient is unsuitable or the medicine is not taken properly.
- ◆ Increased risk of side effects including seizures and hypotension.²⁹

BEHIND THE SCENES



<p>SEPTEMBER 2010: 65 SPAM DONORS RECRUITED VIA RESEARCH COMPANY ONEPOLL</p>	<p>SPAM DONORS SENT ALMOST 3,000 SPAM EMAILS TO BE ANALYSED BY MHRA & PFIZER GLOBAL SECURITY</p>	<p>SPAM EMAILS FILTERED TO SEPARATE 221 EMAILS THAT WERE SELLING MEDICINES</p>
<p>UPON RECEIPT OF MEDICINES, 14 PACKAGES SENT TO PFIZER & 11 TO MHRA LABS FOR TESTING</p>	<p>25 MEDICINES SELECTED FOR PURCHASE</p>	<p>CONTENT OF 221 SPAM EMAILS ANALYSED TO DETERMINE MEDICINES OFFERED & ORIGIN OF NETWORK</p>
<p>ALL MEDICINES TESTED & PACKAGING PHOTOGRAPHED AND ANALYSED</p>	<p>8 SPAM DONORS CONTACTED & FINDINGS PUBLISHED</p>	

CONCLUSION



This collection of 'Spam Donor' stories not only highlights the ease with which fraudsters are using email to target the public, but also the serious threat that spam email carries. We are all at risk and this is even more worrying when you consider that one in seven people surveyed admitted to purchasing prescription only medicines without a prescription from illicit sources such as these.³³

This investigation shows the serious and potentially life-threatening dangers associated with purchasing in this way. Innocent members of the public are being encouraged to buy unknown products with no healthcare advice. Combined with the fraudulent methods employed, they could be seriously jeopardising their health and financial security.

There is clearly still the need for continued public education about the dangers of bypassing the legitimate healthcare system and purchasing prescription only medicines from unregulated websites; particularly as social media becomes more prevalent in our everyday lives, giving spammers yet another route to target the public. Being vigilant and sharing the risks with others will help to spread the word and give us the advantage over the spammers.

THE PLEDGE



Pfizer, MHRA, the Patients Association, RPS, HEART UK and Men's Health Forum have again joined forces to highlight this dangerous trade by spammers and how they impact the lives of innocent people targeted with medicine spam.

All organisations involved in this campaign have pledged to continue to raise awareness of this important issue and educate the public about the importance of using the correct healthcare channels. Our key objectives are to protect people from the dangers of purchasing prescription only medicines from illicit sources such as unregulated websites, to enhance patient safety and keep this issue on the public agenda.

If you'd like to get behind this campaign, you can become a fan of the Real Danger UK Facebook page or 'like' the pledge to show your support.



Conditions highlighted in the spam emails we reviewed

Breast cancer, bipolar disease, Alzheimer's, epilepsy, diabetes, high cholesterol, migraines, angina, Attention Deficit Hyperactivity Disorder, osteoporosis, erectile dysfunction, high blood pressure, narcolepsy, Seasonal Affective Disorder, weight loss, anxiety, depression, insomnia, arthritis, menopause, bacterial infections, pain relief, allergies, back pain, acne, fluid retention, asthma, glaucoma, growth hormone deficiency, smoking, herpes, hypothyroidism, low female libido, acid reflux.



REFERENCES TO BE PROVIDED ON REQUEST



COMMENTS



Our mission is to make the UK the safest place to take medicines. Pharmacists are very concerned about the increase in fake or counterfeit medicines. As expert professionals in medicines and medicines use, we know how important it is to stay safe by ensuring that you always get your prescriptions dispensed at a registered UK pharmacy. Fake medicines don't work or may be contaminated which means at best conditions may go untreated or at worst you could be causing yourself serious harm. If you want to buy medicines online, always check that you are dealing with a genuine pharmacy. Don't go on face value – some of the illegal sites look very professional but supply dangerous fakes. Check the General Pharmaceutical Council website which links to legitimate sites so that you can be sure that you are dealing with a UK registered pharmacy supplying genuine medicines.



It's frightening to learn that people would be happy to consider bypassing the healthcare system to get hold of life saving or even lifestyle medicine. We're pleased to support a campaign that raises the profile of the dangers posed when bypassing the healthcare system and potentially engaging with the counterfeit medicines trade. It is terrifying to imagine the unthinkable damage that spammers could be causing to patients if we don't stop them.



Whilst the Men's Health Forum strongly believes that new technologies can help to improve men's health, we also think it is important to highlight the risks that can be posed, for example by illegitimate online pharmacies selling unapproved or counterfeit medicines. Because men often under-use GP and other services, and may be particularly tempted to buy drugs online without a prescription, the MHF is urging them to get a proper diagnosis from a qualified health professional and not to take the risk of buying dodgy drugs from dodgy websites. That's why we're supporting this campaign.



Today's culture of 'self-diagnosis' and 'self-medication' has created a society that purchase medicines online, without a prescription. There is a very real danger of obtaining dangerous medicines when someone purchases prescription only medicines, without a prescription, over the internet. These could turn out to be counterfeit, unapproved or contain undeclared ingredients that may interact with other ailments or medication. People underestimate the serious risks associated with this behaviour. If a medicine requires a prescription, it is for a good reason. The people behind these illicit websites are criminals that have no healthcare qualifications, and are purely in the business of profiteering at the expense of people's health. The MHRA's mission is to enhance and safeguard the health of the public and this is why it is supporting the spam donors campaign. If someone feels their medicine might be fake, that is if it looks, feels or smells different, then we strongly encourage them to report it to us via the dedicated 24-hour anti-counterfeiting hotline on 0203 080 6701, or by email to counterfeit@mhra.gsi.gov.uk



"We are delighted to be working once more in collaboration with leading patient organisations, the MHRA and the RPS to get the UK public to think twice about bypassing the healthcare system and exposing themselves to the threats posed by medicine spam. This current campaign is designed to encourage discussion around this important issue, and forms part of a wider public education campaign launched by Pfizer two years ago to ensure people understand the risks they are taking when bypassing the healthcare system and purchasing medicines from illicit sources."



SPAM emails advertising medicines are a dangerous and irresponsible way to target vulnerable patients. Not only are patients in danger of taking fake medicines that may not help them with their illness or condition but these medicines may have disastrous consequences and cause severe harm to patients. The Patients Association has long campaigned for better and more accessible health services for patients, but unsolicited emails, that try and sell vulnerable patients fake medicines, are not the answer. By buying medicines online patients not only expose themselves to dangerous medicines but they also miss out on all the wider advantages of getting medicine from a healthcare professional. By obtaining medicine from healthcare professionals, a patient can have peace of mind that what they are being prescribed is exactly what it says on the label. Also, patients can speak to their healthcare professional and get advice on side effects and how best to take the medicine and ensure they get the right type of medicine that fits in with their lifestyle and their needs. By going to see a healthcare professional, patients also have the opportunity to have a mini 'health check' and talk about other medical concerns that they may have – for example, a patient may be reminded to have a cholesterol test or for older women to go and get screened for breast cancer. SPAM medicines are never the answer – they are dangerous and are never an alternative to seeing your healthcare professional.



HELP & ADVICE



Pfizer, MHRA, RPS, the Patients Association, HEART UK and Men's Health Forum have set up a Facebook and Twitter page to provide people with useful information and guidance on how to avoid spam emails and what to do with them. These pages will also act as a destination for people to advise others of suspicious online sites and to continue to raise awareness of the issue among the social media community.

Twitter – [@realdangerUK](#)

Facebook – www.facebook.com/realdangerUK

To find out more, and get advice on the risks of purchasing medicines online, go to www.realdanger.co.uk

To report a counterfeit medicine or device contact the MHRA's dedicated **24-hour hotline** on **020 3080 6701**, or email counterfeit@mhra.gsi.gov.uk, or write to:
Counterfeits, The Intelligence Unit, MHRA, 151 Buckingham Palace Road, Victoria, London, SW1W 9SZ.

The General Pharmaceutical Council (GPhC) has a list of regulated pharmacies that are GPhC registered, so people can be sure they are purchasing safe and genuine medicines online. To find out if a pharmacy is registered visit:

<http://www.pharmacyregulation.org/theregister/lookingforapharmacy/index.aspx>

