

**From the Chief Medical Officer  
Dr Michael McBride**



Department of  
**Health**

An Roinn Sláinte

Mánnystrie O Poustie

[www.health-ni.gov.uk](http://www.health-ni.gov.uk)

**HSS(MD) 8/2019**

**For Action:**

Chief Executives of HSC Trusts  
GP Medical Advisers, Health and Social Care Board  
All General Practitioners and GP Locums (for onward distribution to practice staff)  
Director of Integrated Care, Health and Social Care Board  
Assistant Director of Pharmacy and Medicines Management, Health and Social Care Board (for onward distribution to Community Pharmacies)

Castle Buildings  
Stormont Estate  
BELFAST  
BT4 3SQ

Tel: 028 90 520559

Fax: 028 90 520573

Email: [Michael.McBride@health-ni.gov.uk](mailto:Michael.McBride@health-ni.gov.uk)

Our Ref: HSS(MD) 8/2019

Date: 17 May 2019

**PLEASE SEE ATTACHED FULL CIRCULATION LIST**

Dear Colleague

**HOSPITALISATION AND DEATHS LINKED TO CONSUMPTION OF 2,4-DINITROPHENOL (DNP): RAPID TREATMENT REQUIRED IN CASES OF SUSPECTED DNP POISONING**

**Actions**

- 1. HSC frontline staff should remain vigilant for cases of DNP poisoning.**
- 2. Clinicians should note and act in accordance with the clinical management advice in this letter when patients who are suspected of taking DNP are encountered.**

DNP is a toxic industrial chemical that is unfit for human consumption and illegal for use in foodstuffs. Despite best efforts to remove DNP-containing products from sale, they are still available and may be used by people trying to alter their appearance, such as body builders and those attempting to achieve rapid or extreme weight loss, including some who are vulnerable.

Prior to 2012, enquiries to the National Poisons Information Service (NPIS) about cases of DNP toxicity were rare, but the number of cases referred, and documented fatalities, have increased sharply since then. By the end of March 2019, there have been 120 separate episodes of systemic DNP exposure discussed with the NPIS since 2007 including 117 discussed since 2012. The majority involved younger adults, males more often than females. During 2018 the NPIS recorded the highest number of DNP exposed cases (20) and DNP related deaths (6) since 2015 and

there was also an increase in accesses from health care professionals to information about DNP held on the NPIS website TOXBASE.

DNP is usually sold as a yellow powder, sometimes in capsule form, and is marketed as a 'fat burner' or weight loss supplement. It may be mixed with 'bulking agents,' so the dose of DNP may not be apparent to users which, coupled with the cumulative effect of subsequent doses, can significantly increase the risk to health. Suppliers of DNP target chatrooms on social media and may lead discussions on so-called 'safe' dosage. DNP, however, is highly toxic, there is no defined 'safe' dose and the chemical should not be consumed under any circumstances.

### **Clinical features**

Clinical features of DNP poisoning include fever, dehydration, thirst, flushed skin, sweating, dizziness, nausea, vomiting, abdominal pain, agitation, restlessness, confusion, headaches, rapid breathing and a rapid or irregular pulse. In severe cases hyperpyrexia, seizures, coma, muscular spasms and death may occur despite optimum medical care. Toxic effects are more common when higher doses have been consumed.

Consuming lower amounts over longer periods can cause cataracts and skin lesions, and affect the heart, blood and nervous system.

### **Clinical management**

Any individuals thought to have consumed DNP or considering its use should be advised of the risks. Health professionals dealing with individuals suspected of consuming DNP should advise them to discontinue use immediately and obtain advice on clinical management from the National Poisons Information Service (NPIS) by reference to TOXBASE ([www.toxbase.org](http://www.toxbase.org)).

All patients with features suggesting DNP toxicity should be referred to hospital immediately for assessment and observation and all symptomatic cases should be discussed with the Northern Ireland Regional Medicines Information and Poisons Service by phone (028 9504 0558). Callers will be redirected to the National Poisons Information Service (NPIS) out of hours.

### **Further information**

Health professionals presented with any product that is suspected of containing DNP should immediately contact their local police station, who have procedures in place to manage any find of DNP.

Yours sincerely



**DR MICHAEL McBRIDE**  
Chief Medical Officer



**MRS CATHY HARRISON**  
Acting Chief Pharmaceutical Officer

## Circulation List

Executive Medical Director/Director of Public Health, Public Health Agency (for onward distribution to all relevant staff)  
Director of Nursing, Public Health Agency  
Directors of Pharmacy HSC Trusts  
Director of Social Care and Children, HSCB  
Family Practitioner Service Leads, Health and Social Care Board (for cascade to GP Out of Hours services)  
Medical Directors, HSC Trusts (for onward distribution to all Consultants, gynaecology, hepatology, A&E staff, hospital pharmacy, and sexual health/family planning centres)  
Nursing Directors, HSC Trusts (for onward distribution to all Community Nurses, and Midwives)  
RQIA (for onward transmission to all independent providers including independent hospitals)  
Medicines Management Pharmacists, HSC Board (for cascade to prescribing advisers)  
Regional Medicines Information Service, Belfast HSC Trust  
Regional Pharmaceutical Procurement Service, Northern HSC Trust  
Professor Donna Fitzsimons, Head of School of Nursing and Midwifery QUB  
Professor Sonja McIlpatrick, Head of School of Nursing, University of Ulster  
Caroline Lee, CEC  
Donna Gallagher, Open University  
Professor Paul McCarron, Head of School of Pharmacy and Pharmaceutical Sciences, UU  
Professor Carmel Hughes, Head of School, School of Pharmacy, QUB  
Professor Colin Adair, Director of the NI Centre for Pharmacy Learning and Development, QUB

This letter is available on the Department of Health website at  
<https://www.health-ni.gov.uk/topics/professional-medical-and-environmental-health-advice/hssmd-letters-and-urgent-communications>