



Medical Device Alert

MDA/2019/023

Issued: 04 June 2019 at 10:00

Recommendations for ongoing use of paclitaxel drug coated balloons (DCBs) and implantable drug eluting stents (DESs) in the treatment of patients with peripheral artery disease (PAD)

Summary

Recommendations following publicised concerns over an increase in patient mortality from two years after treatment.

Action

1. Do not use paclitaxel drug coated balloons (DCBs) or drug eluting stents (DESs) in the routine treatment of patients with intermittent claudication until further notice, as the potential mortality risk generally outweighs the benefits.
2. Use of paclitaxel DCBs and DESs in patients with critical limb ischaemia remains an appropriate option in accordance with [NICE guidance](#), as the benefits may outweigh the risks. This is because these patients generally have a higher risk of irreversible ischemic damage resulting from restenosis, and a lower life expectancy.
3. Assess the relative risks on an individual patient basis, and if this supports use of a paclitaxel DCB or DES, ensure that:
 - a. the process of informed consent includes a risk-benefit discussion regarding the uncertainty in long-term outcomes with these devices, and the current evidence which indicates an increased mortality rate
 - b. the patient receives enhanced life-long follow-up.
4. Ensure local procedures accounting for duty of candour are in place for the continued management of patients who have already been treated with paclitaxel DCBs and DESs. Consider the need for enhanced patient follow-up, and the provision of information and advice to address patient concerns arising from the current uncertainty in long-term outcomes with these devices.
5. Where enhanced patient follow-up is appropriate this may include telephone consultations or review in the community, and any serious adverse events and cause of death should be reported.
6. Report suspected or actual adverse events involving these devices through your local incident reporting system and/or your national incident reporting authority as appropriate: [England](#), [Scotland](#), [Northern Ireland](#), [Wales](#). You should also report directly to manufacturers if your local or national systems do not.

Action by

Interventional radiologists
Vascular surgeons

Deadlines for actions

Actions underway: 11 June 2019

Actions complete: 02 July 2019

Problem / background

In December 2018, a [meta-analysis](#) of randomised controlled trials (RCTs) by Katsanos *K*, Spiliopoulos *S*, Kitrou *P*, Krokidis *M*, Karnabatidis *D*.*, was published in the Journal of the American Heart Association. The paper centred on paclitaxel DCBs and DESs used in the femoral and/or popliteal arteries in patients with intermittent claudication. It highlighted a statistically significant increased all-cause mortality from 2 to 5 years post treatment compared with patients treated with plain balloons or bare-metal stents. These findings raised significant concerns on their use in routine clinical practice and clinical trials.

As part of MHRA's investigation of this potential concern, we formed an independent Expert Advisory Group (EAG), comprising practising vascular surgeons and interventional radiologists, supported by MHRA toxicological and statistical experts. This EAG has recently reported its [recommendations](#) to MHRA.

It is accepted that the causal relationship between paclitaxel coated devices and mortality is not yet understood and requires further evaluation. However, having taken account of the EAG's findings, together with other relevant information and opinions, MHRA considers the current evidence does not support the routine use of paclitaxel DCBs or DESs in patients with intermittent claudication.

We will review the need to update this advice as further evidence emerges, including the findings of an ongoing meta-analysis using the patient level data from the RCTs reviewed by Katsanos et al. To build on the current evidence base, the ongoing and completed trials that have reported results from one or two-year follow-up should continue or reopen patient follow-up to try to establish the longer-term mortality status of all patients, up to at least 5 years post-treatment.

The risk-benefit profile for patients with other vascular indications may be different to those for intermittent claudication and requires further clinical evidence to be reviewed before conclusions can be drawn. In summary:

- The use of paclitaxel DCBs and DESs may still be considered in patients with critical limb ischaemia taking NICE guidance into consideration, in view of their increased risk of restenosis and reduced life expectancy.
- A review of results from clinical trials on the use of these devices in patients with arterio-venous fistula remains outstanding. These results should be shared when available to enable assessment of use in this population.

In all cases where paclitaxel DCBs or DESs are used, there needs to be fully informed consent and an enhanced, long-term patient follow-up. Formal long-term surveillance is essential to improve understanding of the safety and performance of these devices following their market approval.

* *Risk of Death Following Application of Paclitaxel-Coated Balloons and Stents in the Femoropopliteal Artery of the Leg: A Systematic Review and Meta-Analysis of Randomized Controlled Trials.*

Katsanos *K*, Spiliopoulos *S*, Kitrou *P*, Krokidis *M*, Karnabatidis *D*.

J Am Heart Assoc. 2018 Dec 18;7(24):e011245. doi: 10.1161/JAHA.118.011245.

Distribution

If you are responsible for cascading these alerts in your organisation, these are our suggested distribution lists.

Trusts (NHS boards in Scotland)

CAS and NICAS liaison officers for onward distribution to all relevant staff including:

- General surgeons
- General surgery
- General surgical units
- Medical directors
- Radiologists
- Radiology departments
- Radiology directors

Independent distribution

Establishments registered with the Care Quality Commission (CQC) (England only)

- Hospitals in the independent sector
- Private medical practitioners

Please note: CQC and OFSTED do not distribute these alerts. Independent healthcare providers and social care providers can sign up to receive MDAs directly from the Central Alerting System (CAS) by sending an email to: safetyalerts@mhra.gov.uk and requesting this facility.

Enquiries

England

Send enquiries about this notice to MHRA, quoting reference number **MDA/2019/023** or **2018/012/014/293/001**.

Technical aspects

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Clinical aspects

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To report an adverse incident involving a medical device in England use the [Yellow Card reporting page](#)

Northern Ireland

Northern Ireland Adverse Incident Centre (NIAIC), CMO Group, Department of Health, Social Services and Public Safety

Tel: 0208 9052 3868

Email: niaic@health-ni.gov.uk

To report an adverse incident involving a medical device in Northern Ireland use the [forms on the website](#).

Alerts in Northern Ireland are distributed via the [NICAS system](#).

Scotland

Incident Reporting and Investigation Centre (IRIC), Health Facilities Scotland, NHS National Services Scotland

Tel: 0131 275 7575

Email: nss.irc@nhs.net

To report an adverse incident involving a medical device in Scotland, [email IRIC](#) to request a webform account.

For more information, or if you can't access the webform, visit the website: [how to report an adverse incident](#)

Wales

Population Healthcare Division, Welsh Government

Tel: 03000 250986 / 03000 255510

Email: haz-aic@wales.gov

To report an adverse incident involving a medical device in Wales, use the [Yellow Card reporting page](#) and follow specific advice for reporting in Wales in [MDA/2004/054 \(Wales\)](#).

MHRA is a centre of the Medicines and Healthcare products Regulatory Agency, an executive agency of the Department of Health and Social Care.

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