

The NHS logo, consisting of the letters 'NHS' in white on a blue rectangular background.

Resolution

# NHS Resolution

## Learning from extravasation claims

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**@NHSResolution**

Advise / Resolve / Learn

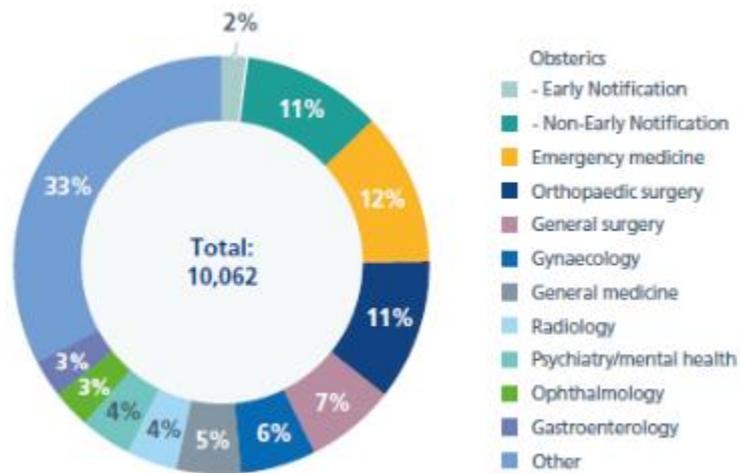
# NHS Resolution purpose, functions and strategic focus



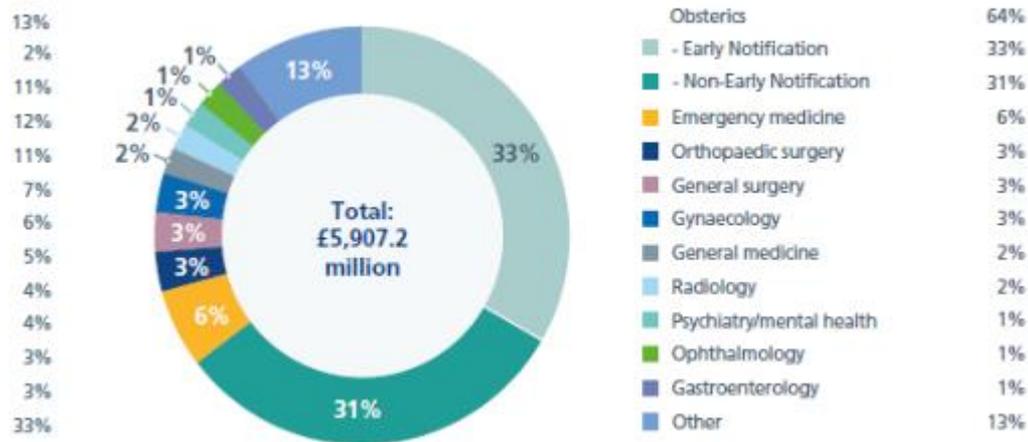
**Our purpose** is to provide expertise to the NHS to resolve concerns fairly, share learning for improvement and preserve resources for patient care.

# The percentage of clinical negligence claims reported in 2022/23 by specialty, with a breakdown by volume and by value

## Total number of claim by number



## Total number of claims by value



# Extravasation injuries

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- Extravasation is the leakage of intravenously administered solution into surrounding tissues, which can cause serious damage to the patient.
- There are multiple guidelines and local policies relating to extravasation injuries but not a singular national uniform policy.

\*An update on extravasation: basic knowledge for clinical pharmacists. European Association of Hospital Pharmacists 2021.

\* Guidelines for the Management of Extravasation. J Educ Eval Health Prof. 2020; 17: 21.

# National extravasation claims

1 April 2011 – 31 March 2021\*



Claims notified

**444**

Claims settled with  
damages paid

**197**

Total cost of settled claims

**£15.6 Million**

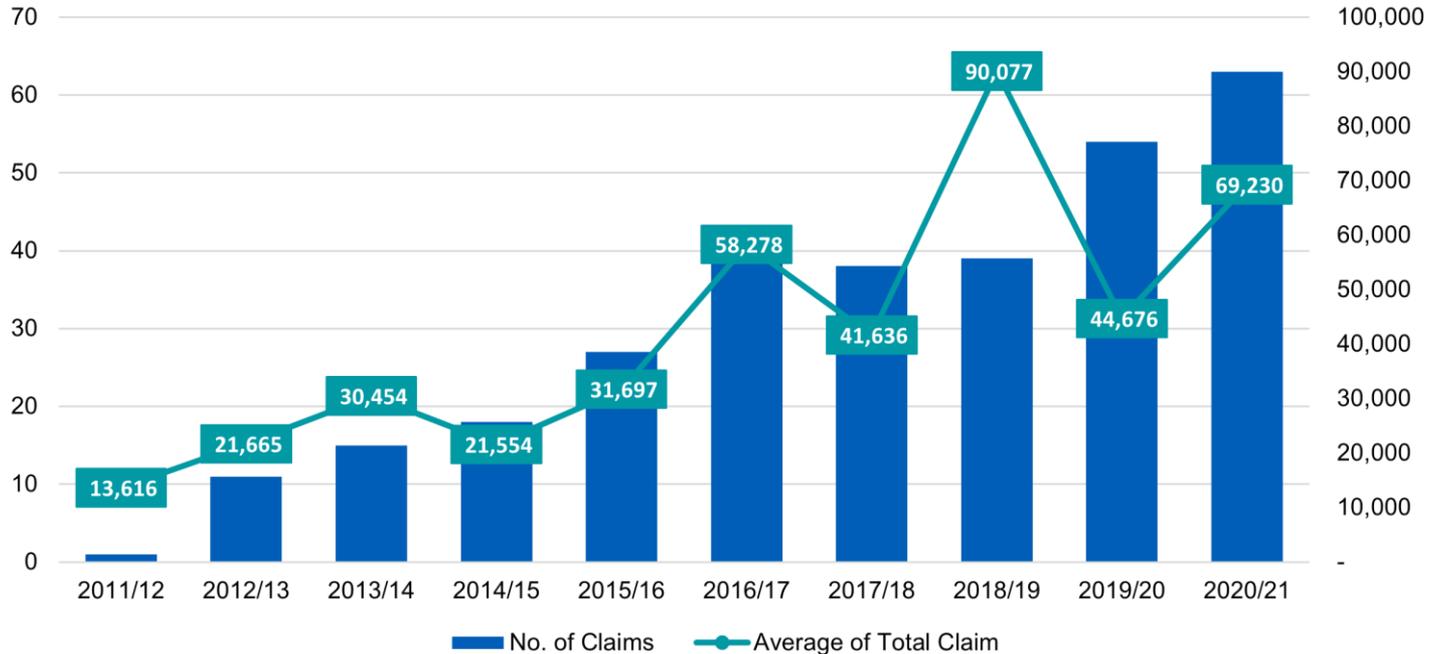
Mean value per claim

**£52,800**

*\*All NHR notified claims related to extravasation 1 April 2011-31 March 2021*

# A changing picture

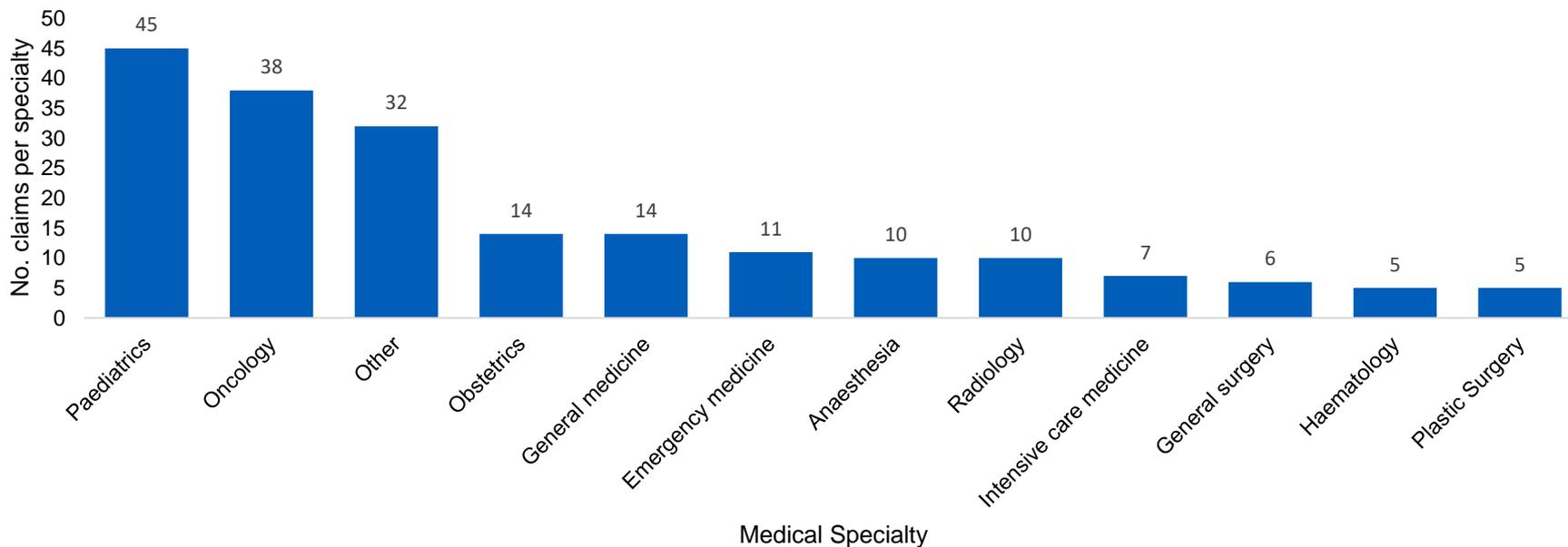
Closed claims - number of claims closed vs avg value of claim



Closed claims are a subset of the claims notified in the date range requested: from 2011 to 2021. There could be other claims closed in this date range that were notified in previous years and are not accounted for here.

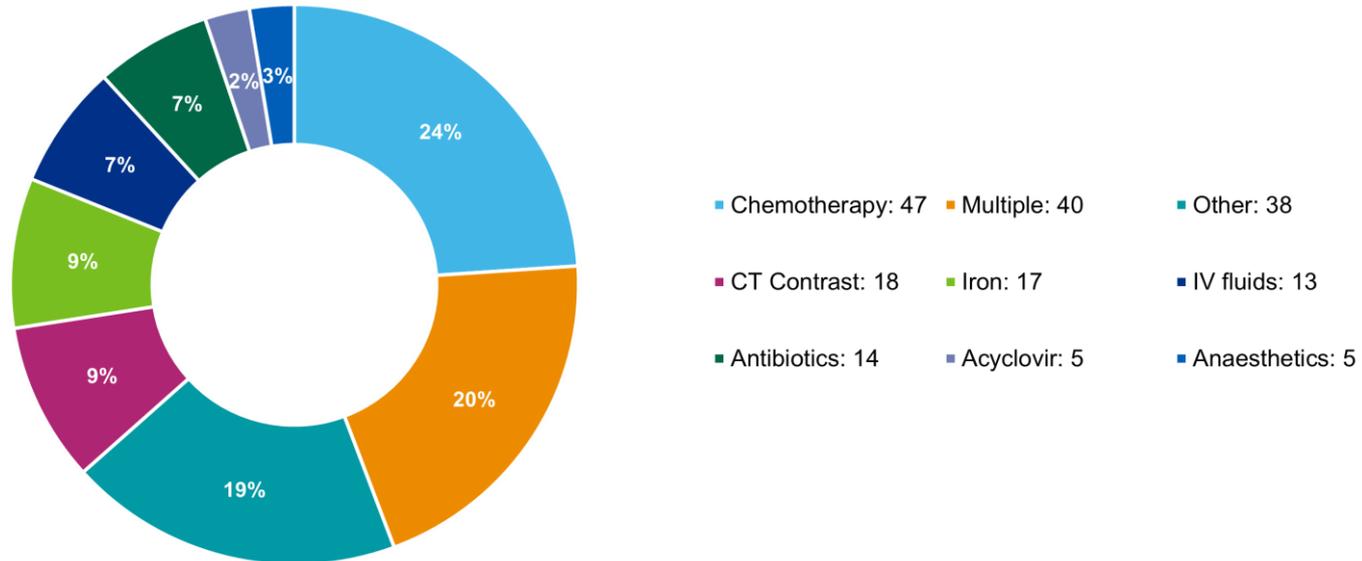
# Top specialities with extravasation claims

Claims closed/settled with damages paid per Speciality



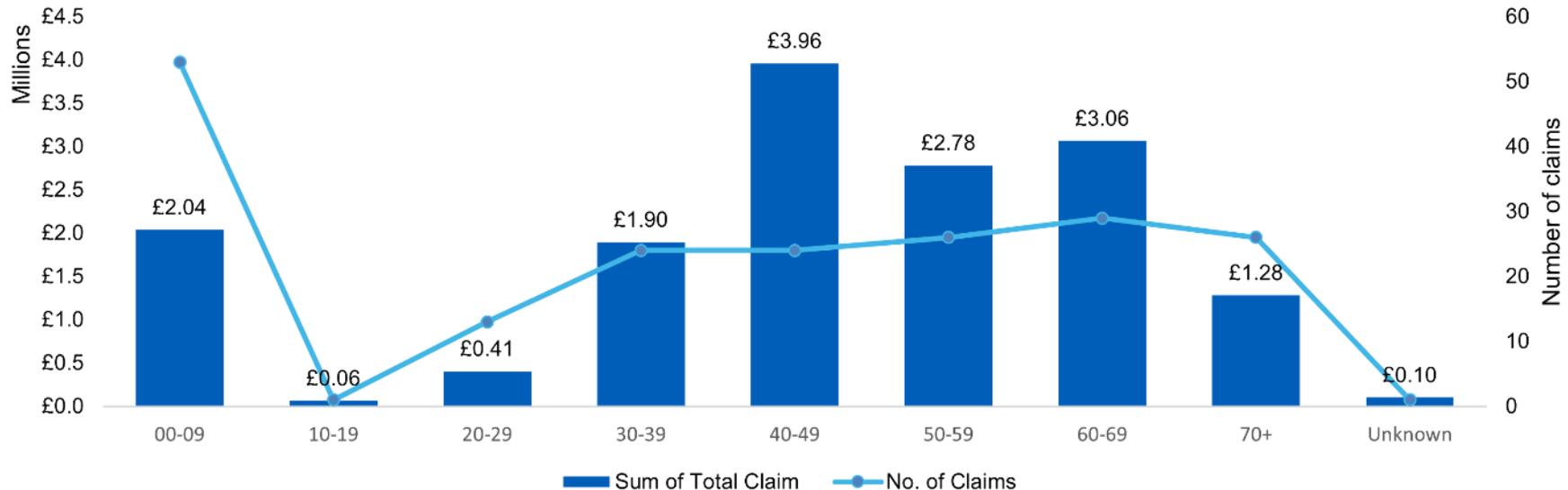
# Extravasation claims: medication type

Percentage of drug type of closed claims with damages



# Extravasation claims by age range

Closed claims with damages paid by age range and total value of the claim



# Examples of extravasation claims

**Paediatrics** – neonatal extravasation injury to hand and foot. Multiple drugs. Failing to observe or document. Ongoing operations as the child grows.

Total cost of claim **£430K**

**Oncology** – third cycle of chemotherapy administered outside of manufacturer’s guidance. Staff did not recognise or appropriately observe. Patient suffered significant burns and scarring. Multiple operations to repair the damage.

Total cost of claim **£230K**

**Radiology** –Emergency admission to Emergency Department and CT performed. Delay in treatment of extravasation due to prioritisation of other injuries. Staff simply forgot about it.

Total cost of claim **£650K**

**Iron** - Maternity patient lack of observations and issues with cannula insertion. Ongoing mobility and psychological issues due to permanent staining.

Total cost of claim **£400K**

# Iron infusions contributory factors

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- Lack of staff knowledge about extravasation
- More widely used as a blood alternative in differing specialities
- High risk procedure
- Informed consent lacking
- Patient concerns not acted on
- Observations not undertaken as per manufacturer's guidance

# When an iron infusion goes wrong



**Source:**  
**Iron staining in Aust Prescr**  
**2020;43:160-3**  
**DOI:**  
**10.18773/austprescr.2020.051.**

“You *should* usually include the following information when discussing benefits and harms...any risk of serious harm, however unlikely it is to occur.”

GMC –Decision Making and Consent(2020)

# Learning from claims: Homerton Healthcare NHS Foundation Trust



Resolution

## Intravenous (IV) iron infusion consent form

Patient name: \_\_\_\_\_

Date of birth: \_\_\_\_\_

NHS/Hospital number: \_\_\_\_\_

Proposed procedure: Intravenous (IV) iron infusion

Intended benefit: Treatment of absolute or functional iron deficiency anaemia

### Side effects and risks

Common or very common	Uncommon	Rare	Very rare
<ul style="list-style-type: none"> <li>•Dizziness</li> <li>•Headache</li> <li>•Nausea</li> <li>•Altered metallic taste</li> </ul>	<ul style="list-style-type: none"> <li>•Vomiting, abdominal pain, constipation, diarrhoea</li> <li>•Low phosphate level</li> <li>•Muscle or joint aches, abnormal sensation</li> <li>•Blurred vision</li> <li>•Hypersensitivity, flushing or hives (itchy red rash)</li> </ul>	<ul style="list-style-type: none"> <li>•Palpitations (faster or noticeable heartbeat)</li> <li>•Very low blood pressure</li> <li>•Feeling faint</li> <li>•Leakage of iron and permanent skin staining</li> </ul>	<ul style="list-style-type: none"> <li>•Anaphylactic shock (swelling of face and throat, difficulty in breathing, rash, circulatory collapse)</li> <li>•Seizure</li> </ul>

Serious side effects include: anaphylaxis (life-threatening allergic reaction), permanent skin staining and significant low phosphate.

Additional Risks: .....

**Healthcare professional:** I have discussed what the procedure is likely to involve, the benefits and risks of any available alternative treatment and addressed any particular concerns of this patient. I have provided a patient information leaflet.

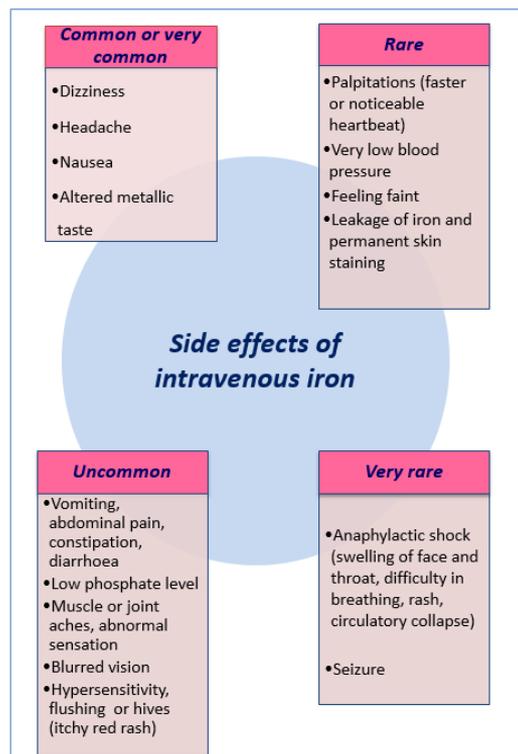
Signed: \_\_\_\_\_

Date: \_\_\_\_\_

**Situation:** Multiple iron infusion extravasation injuries progressed to claims. These were from haematology and obstetrics. Review of the incidents identified that the patient information leaflet and consent process could be improved.

**Action:** The patient safety department were key in detecting the claims and pro-actively searching for other incidents. The legal department worked closely with patient safety and clinicians from haematology and obstetrics.

**Response:** A new patient information leaflet was developed for intravenous iron infusions as well as a new consent form to ensure that risk was explained by clinicians and patients received information about the risks to enable informed consent.



*Rarely, around 1 in 1000 patients develop a brown discoloration to the skin surrounding the infusion site. This is caused by the iron preparation leaking into the skin which may be permanent and you need to immediately inform your doctor.*



*Please inform the nurse or doctor immediately of any discomfort, burning, redness or swelling at the drip site if it occurs at any time throughout the infusion.*



*In the event of developing a severe reaction we will stop the iron infusion and you will be assessed by a doctor*

**Education:** staff education events were also planned to increase awareness of iron infusion extravasations and the cases were discussed at divisional meetings across directorates

- Review patient information leaflets for iron infusions risks
- Review consent process for risks of iron infusions
- Consider any language/communication barriers to describing extravasation symptoms
- Ensure nursing and medical staff are aware of the risk of permanent staining in the event of extravasation during an iron infusion
- Ensure extravasation incidents are reported through incident reporting systems and coding events

# Summary

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- Extravasation is sometimes unavoidable.
- Duty of candour is always the right thing to do.
- Listen to patients, relatives and carers
- Follow local and manufacturer's guidance
- Staff may need regular updates and training which could be supported by including patient stories and learning from claims, incidents and complaints

# Did you know? Medication errors

Click on any of the pictures to read the full leaflet.

You can find other some of our other products for learning via our website [here](#).

Did you know? Insights into medication errors



Did you know? Anti-infective medication errors



Did you know? Heparin and anticoagulants



Did you know? General Practice Medication Errors



Did you know? Maternity Medication Errors



Did you know? Extravasation



# Contact NHS Resolution



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