



Institute of
Medical
Illustrators

IMI National Guidelines

A Guide to Good Practice

Photography of Non-accidental Injuries

These guidelines have been developed by the Institute of Medical Illustrators, in consultation with specialist advisors. They should be considered a guide to good practice, providing a baseline for auditable standards. If necessary, adaptations may be made to take into account your local conditions.

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clinical photography, design and video in healthcare

Registered Office: 12 Coldbath Square, London. EC1R 5HL. Tel: 0207 837 2846. Web: www.imi.org.uk
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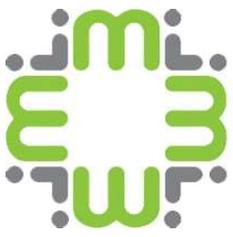
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1. Introduction

The term *safeguarding* is one that is used to indicate the measures taken to protect a person's health, well-being and human rights. The aim of safeguarding is to enable a person to live a life that is free from any type of abuse, harm and neglect. Medical Illustrators are one of many professionals within the healthcare environment who, at times, encounter individuals that have been neglected or abused in some way. Our role in relation to safeguarding comes into effect when we take photographs of patients who are found to be suffering from a clinical condition or with specific injuries, the causes of which are suspected to be non-accidental in nature. The photographs we take in such circumstances, proceed to form part of the patient's clinical records, providing photographic documentation of the condition or injuries sustained. They also, however, may provide evidence of such injuries and could come to form part of a medical report that is used in a legal capacity to protect that person from further harm and to bring those responsible to justice. To fully understand the significance of the role that Medical Illustrators have in relation to safeguarding, we must appreciate the importance that photographic documentation can have.

Photographic documentation can prove to be a fundamental part of a medical report and of the safeguarding process. Without such documentation, the task of conveying the clinical features of a person's injuries or condition to members of a court, may be reliant upon a verbal description or a hand-drawn diagram/body map. Photographs taken of an injury or clinical condition that is suspected to be non-accidental in nature must provide an accurate depiction of the subject and be captured and processed following strict departmental procedures that are modelled upon recommended best practice. If a photograph fails to prove its value as evidence, it may be considered unreliable or unsuitable for use in a legal setting. To ensure a photograph's admissibility in a legal capacity, the photographer should be able to demonstrate:

- when and where the photograph was taken;
- what the photograph depicts;
- the anatomical location of the injury;
- the shape and size of the injury;
- the media used to capture the photograph;
- evidence of written consent or witnessed verbal consent to photography (including whether they may be used in court as evidence);
- that a standard operating procedure was followed throughout production and output .

The key objective of the *IMI National Guidelines for Photography of Non-accidental Injuries* is to provide those involved in the capture of such images with relevant information relating to safeguarding requirements, as well as to highlight issues to consider when photographing patients with suspected non-accidental injuries. The aim of the guidelines is to provide Medical Illustrators with a recommended method of practice that will satisfy all potential end users of their photographs. The guidelines have been produced by the careful collation of significant legislation, published guidelines, and recommendations for best practice from relevant authorities and trusted organisations. Individual departments may choose to adapt their own departmental standard operating procedure, based on the content of these guidelines, but must ensure that the procedure they adopt also complies with relevant government legislation. The guidelines will not provide a standardised set of clinical views for the photography of non-accidental injuries. Medical Illustrators are advised to adhere to relevant IMI National Guidelines for recommended anatomical positioning where appropriate.





2. Safeguarding legislation

Many of us will be aware of the term ‘*child protection*’. Child protection is an element of safeguarding and the promotion of welfare, and is defined as the work that is carried out to protect children who are suffering, or are likely to suffer, significant harm if appropriate intervention is not carried out. Overarching principles to safeguard children across the UK (and in many other countries throughout the world) are defined within the *United Nations Convention on the Rights of the Child, 1989* (although each nation within the UK has additional specific legislation that further defines responsibilities).

Likewise, a legal obligation to safeguard adults is defined within the *Human Rights Act, 1998* (although this Act does include the rights of children also). Again, each nation within the UK has additional specific legislation that further defines responsibilities in relation to the safeguarding of adults.

As lessons are learned and changes occur in our society, the legislation that we abide by evolves also. Thus, it is now widely recognised that the effective safeguarding of vulnerable adults and children is something that cannot be achieved by any single agency alone. In order to be successful, safeguard responsibilities are delegated across several organisations and information shared where appropriate and necessary. The necessity for this action was highlighted originally in the Department of Health’s report, *No Secrets (England)* and in The National Assembly for Wales framework, *In Safe Hands*, both of which offered guidelines for the development and implementation of multi-agency policies and procedures aimed at protecting vulnerable adults from abuse. Today, this method of practice features within legislation nationwide and is applied to both the safeguarding of adults and children alike. Whilst there are various Acts, policies and guidance documents in effect, some of those which we may refer to are listed in *Table 1*.

| England | Northern Ireland | Scotland | Wales |
|---|---|--|---|
| Working together to safeguard children (2015) | Co-operating to safeguard children and young people in Northern Ireland | National guidance for child protection in Scotland, 2014 | Social Services and Well-being (Wales) Act 2014 |
| Children Act 1989 & Children Act 2004 | The Children (Northern Ireland) Order 1995 | Adults with Incapacity (Scotland) Act, 2000 | Children Act 1989 & Children Act 2004 |
| Mental Capacity Act 2005 | Safeguarding Board Act (Northern Ireland) 2011 | Children and Young People (Scotland) Act 2014 | Mental Capacity Act 2005 |
| Safeguarding Vulnerable Groups Act 2006 | Safeguarding Vulnerable Groups (Northern Ireland) Order 2007 | Children (Scotland) Act 1995 | Safeguarding Vulnerable Groups Act 2006 |
| Care Act 2014 | Understanding the Needs of Children in Northern Ireland | Protection of Vulnerable Groups (Scotland) Act 2007 | Safeguarding children: working together under the Children Act 2004 |
| Children and Young Persons Act 2008 | Mental Capacity Act (Northern Ireland) 2016 | Age of Legal Capacity (Scotland) Act 1991 | Children and Young Persons Act 2008 |

Table 1. Relevant Acts, policies and guidance relating to safeguarding





2.1 Confidentiality and information sharing

The *Data Protection Act 1998* provides a framework to govern the processing of information that identifies living individuals. The *Act* applies to confidential patient information and under normal circumstances, if legal requirements are to be met, the NHS must provide a confidential service. Whilst confidentiality between a doctor and patient is a vital component of trust, the patient's welfare, however, precedes this and the duty to share information with other agencies, in order to protect a person from harm, overrides typical confidentiality restrictions. Any information disclosed should be provided on a '*need to know*' basis and proportionate to the perceived risk of harm in the individual case. It is acceptable to disclose confidential information about a person if:

- it is required by law (the appropriate legal documentation should accompany the request to disclose information);
- they consent to their information being shared;
- disclosure is necessary to protect a child, young person or vulnerable adult from abuse or neglect.

2.2 Safeguard training and welfare promotion

The safeguarding and welfare promotion of children and adults is achievable by way of various duties and responsibilities of the agencies with which they come into contact. The safeguarding and welfare promotion of children includes a duty to protect them from maltreatment whilst making sure that they grow up in circumstances that pave the way to safe and effective care. The safeguarding and welfare promotion of adults includes a duty to protect their right to live in safety and to make sure their wellbeing is promoted by taking their views, wishes, feelings and beliefs into account.

In order to facilitate the successful safeguarding and welfare promotion of those that come into our care, the healthcare profession as a whole has a duty to safeguard individuals by referring concerns to local councils and/or the police for further investigation and taking action if it is found that care services don't have suitable arrangements to keep people safe.

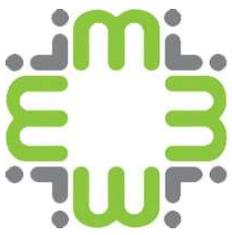
It is necessary that, as members of the healthcare profession, Medical Illustrators are aware of the fundamental principles of safeguarding and have received training to an appropriate level. Intercollegiate guidance on safeguard training indicates that Medical Illustrators should be trained to a minimum of Level 2 of the Competency Framework, as described within *Safeguarding Children and Young People: roles and competences for health care staff*. Such training prepares members of staff to act in accordance with individual workplace requirements, as well as government legislation. Medical Illustrators are advised to contact their local Safeguarding Team for specific advice on training needs and requirements.

2.3 Types of harm and abuse

There are varying categories of abuse that may be inflicted upon adults and children although, as Medical Illustrators, there are some categories that we may more commonly encounter. For children, those tend to be:

- physical abuse, which may involve hitting, shaking, throwing, burning, scalding, restraining or otherwise causing physical harm (physical harm may also be caused when a parent or carer fabricates the symptoms of, or deliberately induces illness in a child);
- sexual abuse, which involves forcing or enticing a child or young person to take part in sexual activities that may also include assault by penetration;





- neglect and acts of omission, including ignoring medical or physical care needs, failure to provide access to appropriate health services, and withholding the necessities of life, such as medication and adequate nutrition (neglect is the most common form of abuse nationally and is defined as the persistent failure to meet a child's basic physical and/or psychological needs).

For adults, the types of abuse we may encounter include:

- physical abuse (as described above and including acts of domestic violence) ;
- sexual abuse, including rape and sexual assault or sexual acts to which the person has not consented, or could not consent, or was pressured into consenting;
- neglect and acts of omission (as described above).

The evidence of such abuse and neglect may be apparent in various forms; bruising, bite marks, wounds inflicted by use of an implement (patterned injury), infestations of lice, or more concealed presentations such as a retinal haemorrhage resulting from an abusive head trauma (also referred to as shaken baby syndrome). The difficult task we are faced with as Medical Illustrators, is how we document such injuries in a way that they provide the clinician with a high quality photographic record for inclusion in the patient's medical records, but they can also be relied upon in a legal capacity to be well-executed and managed with professional expertise, according to strict protocol, by all that are involved in the process. The key to successful documentation of such injuries involves a good line of communication between the Medical Illustrator and the requesting clinician as well as the following of a strict departmental procedure throughout capture and output of photography.

3. The Patient's pathway to Medical Illustration

Patients that are referred to Medical Illustration with suspected non-accidental injuries can arrive at this point through one of many various pathways. For children, the referral may have been instigated by the child's school or by a health visitor. They could have attended hospital for another reason entirely and concerns may have been raised by hospital staff. They may already be subject to a child protection plan and might have been photographed on previous occasions. For adults, concerns may have been raised by family members or friends, or the person may have been involved initially with the police, where suspicious injuries have been queried. Whichever way the patient comes to be referred to Medical Illustration, the request must be managed in a standardised way, each time.

3.1 Initial consultation

Upon admission to hospital, the patient will be placed under the care of a clinician relevant to their clinical needs. The clinical condition of the patient will be assessed and a decision will be taken as to what intervention and action is necessary. This is normally the stage at which a decision will be made to have photographs taken.





4. Receiving a request for photography of suspected non-accidental injuries

Upon receiving a request for photography of suspected non-accidental injuries, it must be agreed where the photographs will be taken. The patient may attend the Medical Illustration Department to have photographs taken in the studio. In this instance, it is advisable that the requesting clinician also attends, so that they can confirm the areas to be photographed and answer any queries the Medical Illustrator may have. The Medical Illustrator must check that the photographic request card is fully and precisely completed. If it is agreed that the photographer will attend a ward or another department to photograph the patient it is strongly advisable to meet with the clinician before entering the room so that any relevant information can be relayed and the request discussed. The clinician must be present during photography as they may need to highlight specific areas on the body (they may also act as a chaperone – see section 4.1.1 for further details). The appropriate consent must be obtained (see section 5 for further information on consent procedures) and a body diagram used to indicate areas of interest. An agreement should be made as to the method by which the clinician will access or receive the photographs.

4.1 Who will be present

During the photography session a patient may be accompanied by family members, nursing staff, social services, or they may be alone. It can be useful to be made aware beforehand who will be present whilst photography takes place. It is worth bearing in mind that the wellbeing of a child in particular may be best served if the person with parental responsibility (or someone familiar to the child) is present during the photography session, as long as this is not prohibited by an appropriate agency. If there are fears for either the safety of the child or the adequacy of the examination however (concerns that the carer's presence may limit the scope of the examination in some way), it may be appropriate for the child to be accompanied only by a member of the paediatric or nursing staff (who may also act as a chaperone – see section 4.1.1 for further details). Occasionally it may also be necessary to seek support from hospital security services.

4.1.1 Use of a chaperone

In cases whereby abuse is suspected, consideration should be made as to the suitability of the choice of chaperone so as not to compound the effects of the suspected abuse. As such, it may be advisable to use a chaperone of the same sex as the patient, especially whereby images of an intimate nature are requested. Details of the chaperone must be documented upon relevant paperwork.

5. Gaining consent to clinical photography

The details in this section are for general information only. For further clarification of issues relating to consent, please refer to current relevant legislation for your area.

It is the clinician's responsibility to inform the patient or person with parental responsibility (or those with decision-making powers) that photographs are required, and to acquire the relevant consent. The reason that photographs are required should be made clear and the patient or person with parental responsibility must be informed that the photographs may be used as evidence in court. A patient's privacy and dignity, and their right to make or participate in decisions that affect them, must be respected at all times. Photographs should only be taken where there is appropriate consent or other valid authority for doing so. There are different methods that relate to children and adults for obtaining consent.





5.1 Consent to photograph a child

Consent for photography must be obtained from the parent/carer (person with parental responsibility) and/or child where appropriate. Under English and Scottish law, children under the age of 16 can provide their own consent to photography if, in the opinion of a qualified medical practitioner, they have enough intelligence, competence and understanding to fully appreciate the implications of their decision (are deemed to be Gillick competent). If the child, or person with parental responsibility, refuses to consent to photographs being taken, this decision must be documented in the medical records with the clinician making detailed notes accompanied by careful line drawings to illustrate the initial findings. The clinician may, however, choose to refer to legal authorities in order to override the decision to refuse consent and subsequently obtain consent by court order, which would allow photographs to be taken. If the person with parental responsibility is not present and therefore unavailable to give consent, then consent may be obtained by telephone conversation if this is possible (details of the discussion must be recorded in the child's medical records). All efforts must be made to obtain consent before taking photographs of a child, as images that are subsequently required for use during legal proceedings may be ruled inadmissible in court by the judge if they are taken without consent.

5.2 Consent to photograph someone aged 16 or 17

People aged 16 or 17 are entitled to give consent to, or refuse photography*. They are presumed to have sufficient capacity to make a decision, unless there is significant evidence to suggest otherwise. In this instance, someone with parental responsibility or with decision-making powers can give consent on their behalf, if this is appropriate.

* Scottish law considers persons aged 16 and over to be an adult.

5.3 Consent to photograph an adult with capacity

Adult patients must be under no pressure to give their consent for photographs to be taken. If an adult has capacity to make a voluntary and informed decision to consent to, or refuse a particular treatment then their decision must be respected, even if the clinician believes their decision to refuse treatment is unwise.

5.4 Consent to photograph a vulnerable adult with capacity

An adult who is considered to be vulnerable, yet is deemed to have the capacity to give consent, has the right to refuse treatment. They must be made fully aware of the risk of refusing treatment, particularly if there is a significant or immediate risk to life. A record of their decision should be made along with the reasons for their refusal of treatment. Such decisions should be kept under review and ongoing support should be offered. It is important to recognise that although an individual with capacity has the right to refuse care for themselves, such refusal may raise safeguarding concerns with respect to others (e.g. children within the home environment).

5.5 Consent to photograph an adult who lacks capacity

Photographs should only be taken of adults who are considered to lack capacity if it is believed by a qualified medical practitioner to be in their best interests to have them taken. Efforts must be made, however, to gain consent from the patient's nearest relative or the person with decision-making powers before photographs are taken.





6. Medical Illustration services

All hospital and local authority services should be made aware of the Medical Illustration facilities that are available and how to access them. Most hospital trusts/health boards have a safeguard lead and adhere to a specific policy or procedure in the event that abuse is suspected in a patient. Photographic documentation should form an integral part of trust safeguard protocol.

Aside from standard photography services, departments may also offer a range of additional services that can be utilised for photography of non-accidental injuries. These may include;

- Infrared (IR), Ultra violet (UV) and cross polarised photography for the purpose of documenting bruising at the time of admission and/or at set intervals*
- Ophthalmic photography to document intra-orbital haemorrhages resulting from abusive head trauma
- Video services to record clinical conditions that are more suitably documented with a moving image

*There has been some discussion on the use of reflected ultraviolet (UV) and near-infrared (IR) imaging for the documentation of bruises. The belief is that using IR or UV will reveal to the investigator, bruises that are not within the visible spectrum and that perhaps a bruise inflicted several months ago will be uncovered for investigation. Some research has suggested potential benefits of UV and IR for imaging a bruise, whilst other research has shown that there is a lack of evidence to allow for a firm conclusion to be made on the usefulness of such images (Wright, 1998a,b, 2010; David, 1990; David and Sobel, 1994; Rowan *et al.*, 2010; Lawson *et al.*, 2010), (Wright, 1998a,b, 2010), (Rowan *et al.*, 2010; Lawson *et al.*, 2010; Tetley, 2005)

6.1 Technical considerations of photography

Although it may not be possible to fulfil standards of best practice at all times, it is crucial to ensure the highest quality of photography possible, by ensuring that those responsible for carrying out such tasks do so according to a standard procedure.

6.2 Photographic equipment

It is essential to have good quality, reliable photographic equipment, which is in a good state of repair. A digital SLR camera of a professional or semi-professional grade is recommended although it is recognised that this standard of kit may not always be an option.

The date and time embedded in the camera should be programmed correctly and checked regularly as this information is essential if the resulting photographs are required for legal purposes (this information can be verified by viewing the metadata of the digital image). Date and time information must be updated on all cameras at the earliest opportunity following an adjustment to the time as a result of 'Daylight Saving Time'. If photographs are taken with the incorrect time embedded in the metadata, this should be noted within accompanying documentation.

A lens with macro capabilities (60mm or 105mm) and a suitable flashgun or ringflash is also recommended. All members of staff who are required to use the equipment must be fully trained to do so. A camera kit should be available in the studio, ready to use whenever necessary. It is also good practice to keep a camera bag ready with all necessary equipment, which can be taken to other wards and departments of the hospital at short notice.

It is wise to maintain an up-to-date inventory of all camera equipment and accessories owned by the department. This information could be requested by a court, but is also useful in case of loss or theft.





6.3 File format

Available file formats differ with each camera. However, for cameras that have such capability, it is best practice to capture RAW files as they provide an image that is of maximum quality and widest tonal range, with minimal processing. If RAW files are not supported by the camera, a TIFF file may be used instead as this provides the next highest available quality.

7. The photographic session

There are precise methods of practice that should be followed when photographing specific injuries that are suspected to be non-accidental in nature. Following such methods can offer vital information that can be used to validate an explanation or support a theory. It must be noted that all images taken of suspected non-accidental injuries must be retained – none must be deleted or destroyed. The deletion or destruction of such images may be viewed in a court of law, as an act of omitting or destroying evidence.

7.1 Identification of the patient

Prior to taking photographs of a patient with suspected non-accidental injuries, the Medical Illustrator must confirm which person it is that photographs have been requested of. Occasionally there may be more than one person present and it should not be assumed which is the patient.

Steps should be taken to ensure that photographs taken of suspected non-accidental injuries can be identified to belong to the correct patient. To facilitate this, an image of the patient's identification information (patient label, consent form, etc.) can be taken, in addition to an image of the patient's face (with the exception of intimate images – see section 7.8 for further information). The patient (or person with parental responsibility) may object to photographs of their face (or their child's face) being taken. The requesting clinician or Medical Illustrator should explain the reason that this photograph is necessary.

Occasionally, requests may be made to photograph siblings or multiple family members who have attended hospital with injuries that are suspected to be non-accidental in nature. It is vital whilst photographing sequential safeguard cases that one person is photographed in full before photographs are taken of the next person. It must also be ensured that the end of one photographic session and the beginning of the subsequent session is clear. Marking the beginning and end of each session with an image of the patient label or consent form can help to define this.

7.2 Use of measurement scales

The L-shaped ABFO#2 scale is recommended for use in photographs of suspected non-accidental injuries. It is reusable and is specifically designed for legal purposes as it provides measurements in both horizontal and vertical directions. The L-shaped scale should be held in place on the same plane as the injury, with the injury being photographed from a 90° angle (figure 1). Failure to do this will result in distortion (figure 2). The scale should be held in place by the corner, with care being taken to ensure the circular marking is visible, as this demonstrates that correct perspective has been achieved. Care must be taken not to apply excessive pressure to the area with the scale, as this may distort the appearance of the injury.



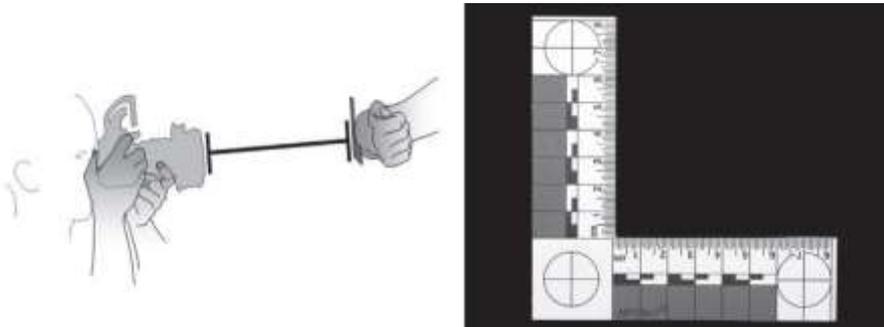
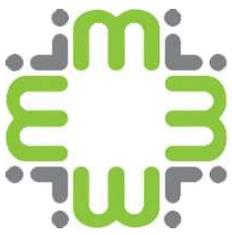


Figure 1. Correct positioning resulting in no distortion

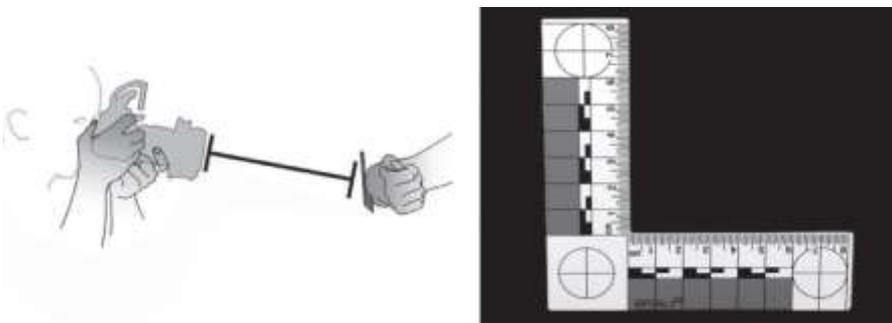


Figure 2. Incorrect positioning resulting in angular distortion

Measurement scales with adhesive backs are not ideal for use in photographs of suspected non-accidental injuries. This type of scale may curve with the contour of the body and as such, will render any measurements unreliable.

7.3 Photography of bruising

At the time of photography, the mechanism of injury and the potential forensic value may not be known. As such all bruises should be photographed utilising the following method. Photographs taken of bruising should include an L-shaped measurement scale, so that measurements are documented in both horizontal and vertical directions. The axis of the camera lens must be perpendicular (90 degrees) to the bruise. If bruising follows a curved area of skin (e.g. around a forearm), several photographs must be taken to document it entirely. An identical photograph must be taken without the scale, to demonstrate that important information has not been inadvertently concealed by its use. A wide location view must be taken to include relevant anatomical features for the purpose of orientation. It may also be useful to repeat photography at 12-24 hour intervals as bruising develops or changes.

To competently document a bite mark, it is essential that photographs are taken to show both upper and lower teeth marks (if visible). The axis of the camera lens must be perpendicular (90 degrees) to the bite and both arches should include an L-shaped measurement scale. If the bite is situated on a curved area of the skin, each arch must be photographed separately with the scale. Again, a photograph must be taken without the scale, so that the entire area of skin is visible, and a wide location view should be taken to include relevant anatomical features for the purpose of orientation.

Some departments may choose to offer 3D imaging facilities. A 3D image capture device minimises the amount of angular distortion, whilst also reducing the problems associated with recording a 3D structure in a 2D image.





7.4 Photography of patterned cutaneous injuries

In some instances, a bruise will have a pattern that mirrors the alleged implement used e.g. imprint of a buckle of a belt, hairbrush, open hand slap or grip mark. In some instances a bruise can present in a negative image of the striking surface. This may be caused by either a high velocity injury, impact from a cylindrical object (including fingers in the case of a grip mark) or an injury over a bony prominence.

7.5 Photography of an implement

Matching an injury pattern to an implement or weapon used has forensic implications with regards to the likelihood of physical abuse, thus impacting upon any subsequent legal proceedings. As such, it may be relevant to the investigation to take photographs of an implement that is suspected of having been used to cause the injury. Although this request may typically be made of the police photographer (or Crime Scene Investigator), Medical Illustrators should still be aware of how to carry out this type of photography. The entire implement should be photographed with closer details of the striking edge. The implement should be photographed using the same technique used for the injury (with an L-shaped measurement scale). This will enable the relevant forensic team to conduct pattern-matching analysis to a safe standard.

7.6 Photography of ear injuries

When documenting injuries to the ear, it is beneficial to photograph the ear from both sides (front and back) as well as the surface of the scalp, posterior to the ear. Injuries to the ear that are not reflected in injuries to the scalp may indicate a nip or twist type of injury. Similarly, such injuries are often to both surface or *'through and through'* reflecting severity and mechanism. Ear injuries involving the scalp area may indicate a strike injury to the ear that has caused bruising to the scalp behind the ear also.

7.7 Use of a colour chart

A colour chart can be a useful tool to aid consistent colour reproduction and can have a significant bearing upon images of bruising. A photograph can be taken of the colour chart, directly where the subject is to be situated and when all images are downloaded, the same corrections to render the colour chart accurate, are applied to all other images. Some measurement scales also incorporate a colour chart alongside the measurements. It is worth bearing in mind, however, that other factors such as a calibrated monitor and printer should be considered if photographic prints are to be produced.

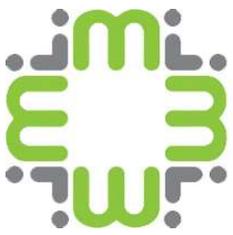
7.8 Intimate images

An image is considered to be of an intimate nature when it involves the genitalia, anus or breast. Intimate images may be requested in patients who are suspected to have suffered sexual or physical abuse. The psychological impact of the situation should be considered and, where possible and appropriate, patients should be given the choice of a male or female photographer.

Specific guidance is available to protect the privacy and dignity of those that undergo intimate imaging that may subsequently be used as evidence in court. The guidance was created by the Faculty of Forensic and Legal Medicine in response to concerns raised over the potential for such images to be improperly distributed and includes recommendations to avoid compounding the effects of the abuse inflicted. Guidelines include a duty to ensure that:

- images are anonymous (identification material should never accompany images of an intimate nature);





- where physical prints are created or images are stored to external media, that media must be stored in a secure location that is accessible by properly authorised individuals only;
- photographs are handed personally to someone who has authority to view them, signed for and returned by secure route to the owner once no longer needed (or copies destroyed). They can then be managed in accordance with legal and relevant professional requirements;
- images are not permitted to be viewed by any other person other than the original requestor, without the permission of the court.

7.9 Sequence of photographic practice

In order for images of non-accidental injuries to make sense to the viewer, they should follow a logical and sequential pattern of capture. A recommended sequence is as follows:

1. Image of the patient's I.D (patient label, consent form, etc.) (with the exception of intimate images).
2. Image of the patient's face (with the exception of intimate images).
3. Location/orientation view demonstrating the injury and identifying anatomical area, without a measurement scale (e.g. the entire arm or leg with the injury).
4. Close-up view of the injury, including a measurement scale (if the injury is on a curved surface, then multiple views (at least three) will be required).
5. Close-up view of the injury without a measurement scale (to show that no relevant detail was obscured by its use) (if the injury is on a curved surface, then multiple views (at least three) will be required).
6. Any further detailed images (to demonstrate relevant detail if necessary).
7. Images using photographic filters or alternate methods of illumination if required.
8. Image of the patient's I.D (patient label, consent form, etc.) (with the exception of intimate images).

7.10 Audit trail of digital images

An essential part of the process of capturing and managing digital images that may be required for legal use, is the commencement of an audit trail at the earliest opportunity. The audit trail is essentially a record created to demonstrate each action that is carried out to a digital image, from the moment it is created on a camera to the time when it is presented in court. Every time an adjustment is made to an image (e.g. alterations to brightness and contrast) it must be recorded either manually or by the software being used to carry out the adjustments (information relating to changes made using software are stored in the metadata of the digital file). It should be noted that any alterations carried out to an image must be easily reproducible by a third party with equivalent training and skills.

A standard recommended procedure for the management of digital image files is to save a master copy of the file in the format in which it was originally created (ideally RAW or TIFF). A working copy (JPEG) can be created from the original file, upon which all necessary operations should be carried out. A suggested method for storage of digital image files is either on a secure server, using a suitable image database, or on CD-ROM as Write Once Read Many (WORM) format*.

*Advice should be sought from Risk Management/Information Governance before storing images in this way, to ensure the practice complies with local data protection regulations.





7.11 Chain of custody

Maintaining a documented chain of custody is essential to the integrity of evidence in court. In order to maintain a chain of custody, you must, if required, be able to prove in court that, whilst in your possession, the photographs for which you are responsible were held securely and without risk of tampering or access by unauthorised individuals.

With regards to photographic prints or digital image files stored on transportable media, an appropriate practice is to maintain a paper record of the date and time the photographs/media were handed to a third party and the name, signature and department/workplace of the person to whom the item is given. An arrangement should be made for a specific person to collect the photographs/media from the Medical Illustration Department and upon arrival, they should present a valid form of photo I.D. Details of the person responsible for distributing the item should also be recorded on the relevant paperwork. The point at which the chain of custody ends for the Medical Illustrator, in relation to a set of photographs/item of transportable media, is the point at which they are signed over to a third party (e.g. local authority, police, or hospital department responsible for liaison with an outside agency). At this point, the third party is responsible for maintaining their own chain of custody.

Maintaining a chain of custody whereby digital image files are distributed electronically by email requires the preservation of all email correspondence in relation to the images. Distributing images via this method should only be carried out to an authorised and verified recipient by way of secure email. Departments should refer to their local Risk Management/Information Governance Team for specific guidance. Any email correspondence regarding the transfer of digital image files intended for court use should include a statement to inform the recipient that the Medical Illustration Department has maintained a chain of custody of the images up until the present time and it is now their responsibility to maintain a chain of custody from this point onwards.

8. Preparation of a departmental standard operating procedure

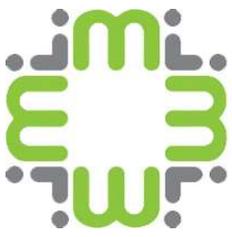
Recommendations of best practice for photographing suspected non-accidental injuries are complex and must be followed precisely. Each Medical Illustration Department should prepare their own departmental standard operating procedure (which may be based upon the guidelines cited within this document) which should consider local requirements and arrangements as well as relevant government legislation. In order to ensure a precise procedure is followed each time, it is useful to have a quick-guide for reference available (refer to section 13 for example).

9. Photographs taken by other healthcare professionals

Medical Illustration services in the NHS are generally not yet provided on a 24/7 basis. In many healthcare settings across the UK, healthcare professionals other than professionally trained and qualified Medical Illustrators are relied upon to take clinical photographs on a camera supplied specifically for use in the absence of a Medical Illustrator (typically in 'out of office' hours). At times, such members of staff will inevitably encounter individuals who are admitted to hospital with injuries that are suspected to be non-accidental in nature. In the best interests of the patient, all efforts should be made to ensure continuity of services as far as possible.

The Medical Illustration Department should provide training to such staff in methods of obtaining the highest possible quality of images. Staff should be trained in methods of precise documentation and given





an opportunity to take part in supervised practice with equipment, so that they may familiarise themselves with it before it is required for use. The Medical Illustration Department should ideally manage the 'out of hours' photographic service; maintaining camera equipment, replenishing stocks, collecting complete paperwork and used media cards at the earliest opportunity, for processing by standardised methods. Staff relied upon to carry out photography 'out of hours' should be given a 'quick-guide to photography' reference sheet as well as further reading material, should they require it.

It is recognised that, under these circumstances, the highest standard of photography may not always be achievable; such staff are not professionally trained to carry out clinical photography therefore photographic results may vary. The Medical Illustration Department should provide support and further training where necessary, to help staff achieve the best possible results.

10. Request to attend legal proceedings

Should images be required for legal proceedings, adherence to a strict departmental procedure in the first instance is ideal preparation. It is vital, however, that care is taken to follow guidelines from the police and/or courts for the preparation and collation of all relevant documentation and information so that it is prepared as is required.

10.1 Supplying a witness statement

It is often necessary for copies of photographs that may eventually be submitted to court as evidence to be accompanied by a witness statement, prepared by the person responsible for taking the photographs. In some areas, police may attend the hospital to take the statement; in other areas, staff are required to prepare a statement which is then submitted to the police, along with the requested photographs. The information provided within the statement must be precise, which is why all important information must be documented carefully and thoroughly at the time of photography. There are certain details that must be included in the statement each time. As such, it can be useful to have a statement template, which can be accessed and altered with each case. The specific requirements of the witness statement are unique to each police force and should be verified before a template is prepared.

In Scotland, the Scottish Children's Reporter Administration (SCRA) can also (and separately) submit a written request for copies of the images for evidence in court. A 'signature of authenticity' statement in this scenario is prepared and submitted directly to the SCRA.

10.2 Preparation for court

In relation to legal proceedings, the Medical Illustrator is considered a witness and may be called upon by the court to attend and present their evidence (the Medical Illustrator should not be expected to express an opinion, they will normally be required to confirm the authenticity of the photographs and define the circumstances under which they were taken).

In criminal proceedings, the case will be listed under the name of the defendant but the name of the victim should also be provided (if this information is not automatically provided, the Medical Illustrator should contact the relevant office to ascertain the identity of the victim, in order to aid court preparation). The Medical Illustrator should gather all information relating to their involvement in the case so that they may familiarise fully with it. Court cases sometimes take place months or even years after the initial event so it is unwise to rely upon memory alone.





The Medical Illustrator should take copies of any relevant material/notes to read up on and a form of identification (specific permission is required from the judge if the Medical Illustrator wishes to refer to any material/notes during the court case).

11. Conclusion

Medical Illustrators must be aware of the significance of the work they carry out in relation to the documentation of suspected non-accidental injuries and how their photographs can be used to protect a person from having to suffer the infliction of abuse from that point onwards. The Medical Illustrator is part of a vast network of professionals and organisations, all of whom have a duty to work collaboratively to provide those who rely upon their services with a structured, efficient and dedicated approach to their care.

Medical Illustrators have a duty to maintain their professional standards and must keep up to date with technical developments and changes in required practices, as they occur. They must ensure that the work they carry out on a daily basis is of an exceptional standard and serves the patients that use their services well. Medical Illustrators must ensure that they follow a departmental standard operating procedure that adheres to recommended guidelines for best practice so that they can be certain that if their photographs are required for legal purposes, the integrity and quality of their images can be guaranteed every time.





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13. Quick-guide to NAI photography

Receiving a request for photography of suspected non-accidental injuries

- Agree where the photographs will be taken (studio/ward).
- Check that the photographic request form is fully and precisely completed.
- Verify the consent status and ensure this is recorded on the photographic request form.
- Liaise with the clinician so that, if necessary, the request can be discussed.
- Ensure you have the correct equipment available and that it is all in full working order.
- Ascertain who will be present during photography (including arrangement of a chaperone if necessary).
- Agree the method by which the requesting clinician will access or receive the photographs.

The photography session

- Confirm the identity of the patient.
- Take a photograph of the patient's I.D (patient label/consent form) (with the exception of intimate images).
- Photograph the patient's face (with the exception of intimate images).
- Take a location/orientation photograph demonstrating the injury and identifying anatomical area, without a measurement scale (e.g. the entire limb with the injury in view).
- Take a close-up photograph of the injury, including a measurement scale (if the injury is on a curved surface, then multiple views (at least three) will be required).
- Take a close-up view of the injury without a measurement scale (to show that no relevant detail was obscured by its use) (if the injury is on a curved surface, then multiple views (at least three) will be required).
- Take any further detailed images (to demonstrate relevant detail if necessary).
- Take any photographs using photographic filters or alternate methods of illumination if required.
- Take a photograph of patient's I.D (patient label, consent form, etc.) (with the exception of intimate images).
- Document all important information precisely.

After photographs have been taken

- Process and prepare the photographs according to standard departmental operating procedure.
- Maintain a chain of custody of the photographs.





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15. Lead author, working group and clinical experts

Lead Author

Karen Rose-McGuckin, Senior Clinical Photographer, Medical Illustration Department, University Hospital of North Durham, County Durham & Darlington NHS Foundation Trust

Working Group

Dr Stephen Cronin, Consultant Paediatrician and Designated Doctor for Child Protection for County Durham and Darlington, County Durham & Darlington NHS Foundation Trust

Sam Evans, Chief Clinical Photographer, School of Dentistry, College of Biomedical & Life Sciences, Cardiff University

Dr Charlotte Kirk, Paediatric Consultant in NHS Lothian Community Child Health

Steve Stanton, Medical Photographer, NHS Lothian, Royal Hospital for Children and Young People, Edinburgh

