



How to make a Burns Telereferral

Guide for Emergency Departments and Clinics

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Outline

Referring patients for burn specialist treatment is currently performed via a telephone conversation and possibly a faxed proforma. However, no matter how good a telephone conversation, faxed information or diagram may be, it is rarely as useful or informative as a good quality image. A telereferral system should both incorporate the necessary information required on a proforma along with images of the wound/injury so that the specialist can make the optimal decision for the patient's treatment. This ensures that the patient is seen ultimately in the "right place, by the right people, first time", thus, it not only improves patient care but also protects NHS resources by reducing the number of inaccurate and/or inappropriate referrals and the need for secondary transfers.

Currently, transferring images with referrals are not commonplace because (1) there is no easy, secure technology available and/or (2) digital cameras in hospitals, GP clinics or walk-in centres are either not always available or require dedicated Medical Illustration staff to be summoned – resulting in delays or images not being included.

The system proposed here has been developed to take advantage of the ubiquitous possession of smartphones. In brief, a camera app for mobile devices has been developed that encrypts the photo taken by the referrer and uploads the image to the referral record that was submitted earlier via a secure web site. The image is never written to the phone storage drive and no patient information is ever entered into the app. Thus as long as the patient was informed and has consented to the use of the images, the process follows the Visual Recordings GMC Guidance, 2011 and recommendations from the Caldicott Report, 1997.

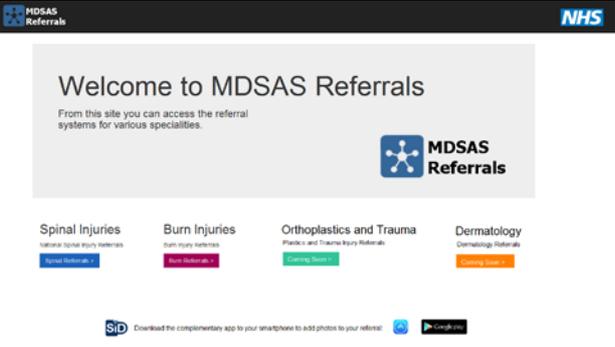
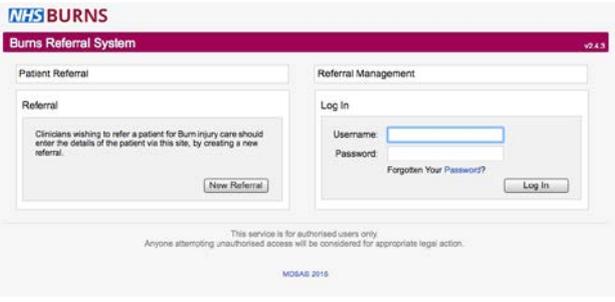
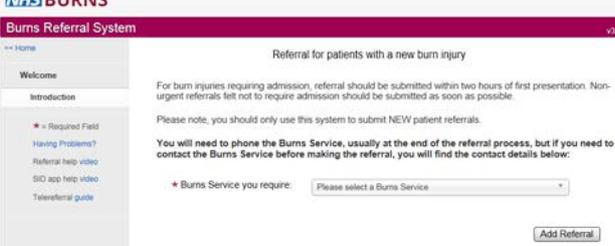
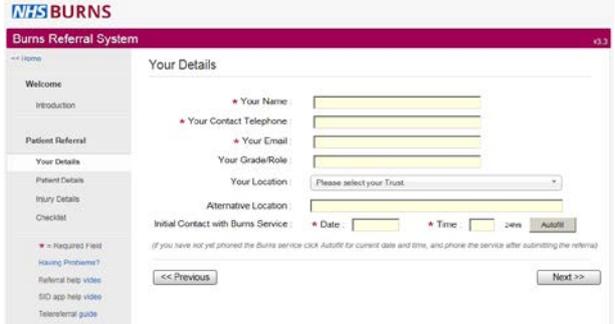
Following extensive consultation and input from ED teams, GPs and burn clinicians, the webpage form has been tailored to request only the key information required by the specialist service necessary to make a decision, while minimising the time required by the referrer. An online referral takes between 3-5 minutes to complete depending on the nature of the specialised service being accessed and thus on the amount of information required.

The website for both submitting and managing the referral can be accessed by a web browser on any NHS N3 networked computer. The referrer does not need to register before making a submission. These steps increases the security of the system by limiting access away from the general public while capturing the majority of NHS referring sites.

The referral data and images are encrypted to NHS level guidelines (Algorithm: SHA-2, Bit Strength: 2048 (256), Transport Protocol: TLS with SSL Disabled) and stored in one single centralised NHS CCG data-centre. Thus, specialist doctors can access the data from any computer with NHS network access, facilitating both senior clinical input and multi-disciplinary input. This set-up also removes the need for each Trust to have their own dedicated server or databank, reducing the complexity of dealing with different IT systems, managements and protocols at each Trust and reduces running costs.

In summary, a computer with access to the NHS network and a smartphone is the only pre-requisite to make a referral system to a Specialist Service.

For further information about the system, please read the Telereferral Overview Document.

<p>Accessing the Referral website</p> <p>Users can only access the website on a computer that is connected to the NHS N3 network.</p> <p>Open your web browser on the computer and enter the following URL address:</p> <p style="text-align: center;">http://referrals.mdsas.nhs.uk</p>	 <p>(We recommend Chrome, although Internet Explorer 8.0 or newer is supported)</p>
<p>MDSAS Homepage</p> <p>The Referral System is utilized by a growing number of different clinical specialties. The process to refer to different specialties will be similar.</p> <p>To make a Burns referral, click on the Burn Referrals button.</p>	
<p>Burns Homepage</p> <p>You can also access this page directly by entering: https://nww.mdsas.nhs.uk/burns/</p> <p>To create a referral, click on New Referral on the left side of the screen.</p> <p>There is no need to register.</p>	
<p>Introduction</p> <p>Please select the Burns Service that you require from the list.</p>	
<p>Your (Referrer's) Details</p> <p>Enter information about yourself and select your location from the list, or enter into the box. Please use a NHS email address.</p> <p>You <u>must telephone</u> the service to confirm that your patient requires Burns specialist advice. This also lets the Burns Service know that an online referral will be arriving. Alternatively, you should call the burn service immediately after submitting the referral.</p>	 <p>Red asterisks * signify that this information is required and you will not be allowed to proceed without filling in this field</p>

Patient Details

Enter information about the patient.

The screenshot shows the 'Patient Details' form in the NHS Burns Referral System. The form includes fields for: Given Name (s), Family Name, DOB (dd/mm/yyyy), NHS No., Gender (Male/Female), Vulnerable Person (Yes/No), and Language of Patient. There are 'Previous' and 'Next' buttons at the bottom. A sidebar on the left contains navigation links: Welcome, Introduction, Patient Referral, Your Details, Patient Details (checked), Injury Details, Checklist, and a 'Required Field' indicator.

Injury Details

Information from this page will help the specialist make a decision regarding how to treat the injury. The more information you provide about the injury and the patient's injury circumstance, the better the specialists can make their decision.

The blue question mark button explains how to calculate the % Total Body Surface Area; and how to differentiate between a superficial burn and a deep dermal burn.

“Does the patient have an airway injury?” and “Does the patient require Fluid Resuscitation?” are questions that help determine whether the burn injury is complex/major. Answering “Yes” will result in the corresponding pages appearing that ask for more information relating to either Airway Injury or Resuscitation. Answering “No” indicates the burn is minor & you will not see these pages.

At this point, you are reminded to provide the patient with “First Aid of Cool Running Water for 20 minutes”. Please do so if you haven't.

The two text boxes below allow you to enter details about (1) medical or first aid treatment(s) you may have provided at the ED or clinic; and (2) past medical history or comorbidities. If necessary, you may also enter GP or next of kin details, the patient address or any other comments.

Finally, you can upload images that are already stored on your computer's hard drive. Click “Choose File”, select the image on your computer, and click “Upload”. A message below this box will confirm a successful upload.

The screenshot shows the 'Injury Details' form in the NHS Burns Referral System. The form includes fields for: Date & Time of Injury, Arrived in A&E, Describe Injury, Type of Injury, Locality, Living space, Activity, Category, and % TBSA (superficial and deep dermal). It also includes checkboxes for 'Does the patient have an airway injury?' and 'Does the patient require Fluid Resuscitation?'. There are text boxes for 'Medication', 'Other comments / past medical history / comorbidities', and a file upload section with 'Choose File' and 'Upload' buttons. A sidebar on the left contains navigation links: Welcome, Introduction, Patient Referral, Your Details, Patient Details, Injury Details (checked), Checklist, and a 'Required Field' indicator.

Additional Details

This page will only appear if you selected “No” to both questions regarding Airway and Fluid Resuscitation on the previous page.

Please enter the patient’s telephone, address and GP details so we can arrange an appointment with them.

Airway

This page will only appear if you selected “Yes” to “Does the patient have an airway injury?” on the previous page.

Please make sure you get an airway review from an anaesthetist before answering this page.

The information you provide here will help the Burn specialist make the most informed decision regarding treatment.

Endotracheal tubes should not be shortened because facial or airway swelling may make access to the proximal end of the tube difficult.

Resuscitation

This page will only appear if you selected “Yes” to “Does the patient require Fluid Resuscitation?” on the previous page.

The information you provide here will help the Burn specialist make the most informed decision regarding treatment.

You may leave questions blank or click “Don't Know”, if you are unsure.

Checklist

The checklist is a reminder of tasks to be performed by you immediately and prior to transferring the patient.

The tasks that appear will differ depending on whether this is a minor or a major burn referral.

Click **Submit** to submit the referral to the system.

Confirmation and Sending Photos

This pop-up confirms that your referral has been submitted to the Burns Service you selected. The referral has a unique ID number and a unique QR code. The QR code allows you to add photos.

Download “Secure Image Data” app from the App Stores on iPhone or Android phones by searching “MDSAS”.

1. Launch the app on your smartphone
2. Scan the QR code displayed on-screen. (This lets the app know which referral to assign the photos to).
3. Consent the patient (use the patient information leaflet provided) and take photos of the wound with the app.
4. You should also take a photo of the consent form (if applicable).

We encourage that you send photos of the injury because it will play an important role in the decision made by the Burns specialist.

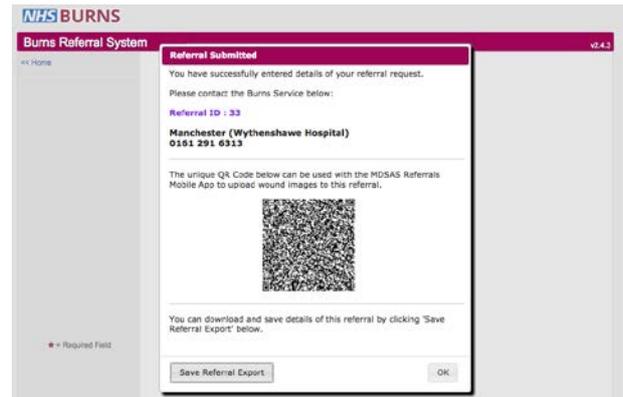
You do not need to enter patient information into the app. Photos you take via the app are not stored on your phone.

NOT SENDING IMAGES OF THE INJURY WILL DELAY THE REFERRAL PROCESS

You can click **Save Referral Export** to download a PDF report of the referral you just made. The PDF will contain the unique QR code. The report can then be printed for your patient records. This action is recommended as it allows you to access the QR code at a later point.

Please telephone the Burns service now, if you have not already done so. If you do not notify the Burns service – they will not know.

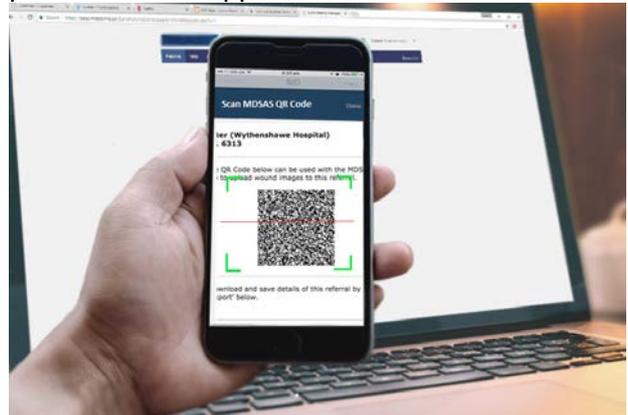
The Burns service will review the referral online and advise you over the telephone with the next appropriate steps.



(1) Download “MDSAS Secure Image Data” app from the App store on your mobile phone



(2) Scan the on-screen QR code with your phone and the app.



(3) Obtain consent and then take photos of the wound



(4) Select “Upload” to send photo to the referral database via the app

FAQs/Troubleshooting:

Q: I can't access the homepage of the website.

A: *Different Trusts have different IT firewall permissions. Try to enter the Burns referral web address directly: <https://nww.mdsas.nhs.uk/burns> Otherwise, you will need to inform your Trust IT team to make an exception for the telereferral website.*

Q: The use of personal mobile phones is against my Trust's Information Governance policy. How can I upload photos?

A: *As documented in the Caldicott Review 2013, local Trust IG policy should not be placed before patient interest and consent. If the patient consents to their information being shared including photos of their injury, especially as it forms a part of their assessment, investigation or treatment, then IG policy should not be prioritized. The review went as far as introducing a seventh Caldicott principle to overcome obstructive local IG policies: "The duty to share information can be as important as the duty to protect patient confidentiality." Therefore, you should do what you consider to be in the patient's best interest.*

For future referrals, please notify your Information Governance Team, IT team and the Caldicott Guardian of your Trust about the telereferral system a.s.a.p. This gives your Trust as much time as possible to officially "approve" the system and review their policies. Some Trusts have opted to use a shared Trust iPad or smartphone to take photos. In the meantime, photos can still be uploaded via a memory card transfer from a Trust digital camera.

Q: Does the GMC have a position on the use of personal mobile phones for the visual and audio recording of patients?

A: *Yes, the GMC guidelines on "The making and using of visual and audio recordings of patients, 2011" clearly state that visual and audio recordings of patients may be made by mobile phones, especially if it forms a part of their assessment, investigation or treatment. The patient must be informed and has consented to the purpose and how the recordings will be handled and stored. This along with the Caldicott Seventh Principle supersedes any local Trust Information Governance Policy.*

Q: Does the app comply with Information Governance and the Data Protection Act 1998?

A: *The app complies with the Information Governance because the app encrypts images for patient security before securely uploading to the NHS database. No entry of patient identifiable data into the app is required. No images are stored on your phone. Only healthcare professionals involved with the patient's direct care can access the information. You should still inform and obtain patient consent before proceeding. Take and upload a photo of the consent form – it should contain the whole form and square on.*

Q: Where are photos that I take using the SiD app stored on my phone and can I retrieve them?

A: *Photos taken via the app are never stored on your phone. They are automatically encrypted and sent to the referral database. You cannot retrieve photos taken by the app.*

Q: I try to scan the QR code generated using the app, but the app won't scan the QR code on the screen.

A: *The resolution on your monitor may be too small. Enlarge the QR code by zooming the page to 150% in the browser settings. Alternatively, you can export and print the PDF and then scan the QR code from there.*

Q: I cannot receive WiFi or a cell signal. How can I still upload images to the referral?

A: *Scan the QR code on-screen with the SiD app, then move to an area that has cell signal to upload data, to retrieve the Referral ID. Take a photo with the SiD app and then move to an area with cell signal to upload. The hospital may improve their WiFi coverage if you had informed them of the system. Alternatively, you can upload images to the referral via the web-browser from a digital camera and memory card.*

Q: How can I take a good clinical photograph?

A: *Take an establishing shot to show the location and size of the wound. You should then take a close-up. Ensure good lighting and turn off the flash. Hold the smartphone still to reduce blur. Place the subject in the centre of the frame. Take the photograph “square on”.*

Q: The referral website asks for information that I do not know. Can I leave the page and come back to it?

A: *Yes, the referral website will not time you out. As long as you don't close the browser or navigate away from the page, you can complete the referral later.*

Q: Some pages on the website show errors in formatting. How can I progress with my referral?

A: *The website has been tested with Internet Explorer 8.0+ and Chrome. If you are getting errors in formatting, please try a different browser or computer from the one you are using.*

Q: How do I know I submitted a referral successfully?

A: *You will receive an automated confirmation email to the email address you put in the “Your Details” section. A QR code is also created on the confirmation screen – use this to send photos with the app.*

Q: How do I know the specialist service has received my referral?

A: *If you telephoned the specialist service before submitting, they will be expecting your referral. If you have not telephoned them, do it immediately after you have completed your referral and sent photos. They will telephone you once they have decided how to progress with your patient.*

Q: The specialists are asking for photos of the patient/injury. But I closed all the windows after submitting a referral. How can I send photos now?

A: *It is good practice to export the PDF after submitting a referral and print it out for your department's records. The PDF displays the QR code that will allow you to upload more photos via the SiD app. If you cannot locate the PDF, you can also find the QR code in the confirmation email you received.*

Q: Where can I find more help with the referral process?

A: You can contact MDSAS for technical support at support@mdsas.com. The SiD app website can be found at <http://sid.mdsas.com/> and instructional videos can be found at <https://goo.gl/RbRja3>

Telereferral Pathway from External Emergency Departments

