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Diploma in Hand Surgery

Programme Handbook

School of Medicine

Faculty of Medical and Human Sciences

and

British Society for Surgery of the Hand

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1. INTRODUCTION

1.1 Welcome statement from BSSH

We are very pleased to welcome you as a senior trainee or consultant with an expressed interest in Hand Surgery. The purpose of this Handbook is to act as a reference and resource for those who are contemplating or have signed up to the Diploma programme. It aims to inform you of the steps needed to enrol on and then successfully participate in the course. It is worthwhile to read before you commence your studies and should then be kept for future reference.

The British Society for Surgery of the Hand (BSSH) has, since its inception in 1968, promoted good practice and training in hand surgery. Serial developments have included establishment of: annual national and international meetings, the British & European Journal of Hand Surgery, a full program of practical and instructional courses (including those in liaison with the Raven Department of Education at the Royal College of Surgeons of England) and a system of national fellowships in hand surgery (Advanced Training Posts).

Members of the BSSH have felt it timely to develop a specified program of study leading to a formal qualification in hand surgery. Not only will the Diploma confer advantage to you in terms of receiving quality training but there are specific gains to the profession of which you will later be a part. The Diploma has been conceived in partnership and as a validated agreement with the University of Manchester (UoM). The Diploma is awarded by the University as postgraduate qualification after completion of a specified syllabus followed by success in a final examination. The Diploma:

- Defines the standard of the practising hand surgeon in the UK
- Promotes recognition of Hand Surgery as a postgraduate specialty
- Allows the profession to define its own paradigm of specialist education
- Tests the training program – ‘closing the training loop’

In addition:

- Formal examination enjoys confidence of both profession and public as a signal of attainment and competence
- Elements of the program could be incorporated into future revalidation of all practising hand surgeons

The Hand Diploma will run on a ‘distributed-learning’ basis which we take to mean ‘*a programme of instruction taking place at sites remote from Manchester University and at specialist hand surgery centres around the United Kingdom and Republic of Ireland.*’ ‘In-house’ teaching and assessment is supported by the national system of practical and lecture courses and conferences affiliated to the programme.

The Handbook will tell you about:

- Aims of the Hand Diploma programme
- Learning with the BSSH / University of Manchester
- Provisions for support and supervision
- Administrative and assessment regulations

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1.2 Key elements of the programme

1.2.1 Eligibility criteria

As the participating surgeon you will need to hold a basic medical qualification registered with the General Medical Council. In addition you will need to have passed the Intercollegiate Specialty Fellowship in Orthopaedic or Plastic Surgery. At the time of registration you will need to have previously undertaken, have started or will be undertaking a minimum of six months advanced hand surgery training (post Fellowship). This experience should be over and above what has been previously undertaken for the Intercollegiate Specialty Fellowship. This experience may be gained within your existing rotation following agreement of your rotation's Programme Director. It is the mutual responsibility of the participating surgeon and the supervising consultant to ensure that the participating surgeon will be able to fulfil the requirements of the programme including undertaking the necessary course unit assessments.

Existing consultants may wish to take the Diploma and are encouraged so to do. You will need to identify a colleague to act as supervisor in a similar manner to surgeons who are still in the training grade. The course is then administered in the same way via a series of tutorials and formal assessments for each course unit as previously stated. Previous Fellowship experience in hand surgery will be considered on an individual basis within the early years of the programme but you will still need to have your supervising colleague undertake the same internal assessment for each course unit. It would be anticipated that existing consultants would have sufficient familiarity with the course content that their assimilation of material would be relatively quick. There would still have to be a 12 month period from registration to sitting of the final exam. Assessed courses at recognised institutions, attended up to 5 years before the date of registration may be considered for the exemption of specific course units/part course units of this Diploma programme subject to Educational Director and UoM approval to a maximum of 30 credits.

1.2.2 Registration

The first step for any surgeon wishing to enrol on the course is to identify and obtain the commitment to participate of an eligible supervising consultant who has a major interest in and clinical practice in hand surgery. The supervising consultant must apply and get approval from the Educational Director having completed a separate enrolment form. Once accepted, the UoM will issue a formal contract of engagement on the advice and recommendation of the Educational Director. Once approval for the supervising consultant has been agreed the participating surgeon will register with the Course Administrator at the BSSH office (currently Miss Angela Rausch). There is an enrolment form that must be completed and returned along with the necessary course fee payment. Payment may be by cheque or credit card (Appendix 8).
(See also algorithm in section 4.1)

1.2.3 Full-time and part-time study

It is anticipated that the majority of participating surgeons will study full-time with 6 months of advanced hand surgery training and a further 6 months in substantiating the theoretical base of the subject matter. This would correspond with 12 months from the time of registration to complete the programme. Consistent with existing Equal Opportunities Policy the course may be taken part-time. Any part-time study will be agreed prior to the commencement of an individual on the programme and there should be a stated minimum weekly study time allowance. As the participating surgeon

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you should declare at the time of registration with the BSSH office whether you wish to study full-time or part-time. Breaks in study can also be accommodated but should be advised to the BSSH office when the necessity for the same arises. It is the responsibility of the participating surgeon to advise the BSSH Course Administrator of changes of circumstances that affect their status on the course (see also section 4.3 Responsibilities of participating surgeon)

1.2.4 Induction arrangements

Written materials and password-protected access to the relevant part of the BSSH web site will be provided. A copy of the Programme Handbook will be provided to participating surgeons and their consultant supervisors. In addition the participating surgeon will receive a booklet entitled Record of Coursework and Assessments that specifies the required assessments for each Module. The internal assessments are adapted from those that have recently been developed for the run through registrar training programme. Examples of the different types of internal assessment can be viewed via the MMC web site www.mmc.nhs.uk/. It is important that both the participating surgeon and the supervising consultant view these particularly at the outset when this type of format is unfamiliar to most. At commencement of the course the supervising consultant and participating surgeon should plan to meet and specify a personal development plan (see also section 5.9 Personal Development Planning).

Each participating department will have a regional mentor who can answer questions regarding the programme and be a first point of contact if any difficulties arise. Names of these mentors can be obtained from the BSSH office.

1.2.5 Administrative records

The BSSH office will keep a file on each participating surgeon with both paper and electronic copy and will keep an up to date log of accumulated credit points as the course progresses. Details of the file can be obtained on request by the participating surgeon, their consultant supervisor and the administrators of the Diploma. Beyond that the contents of the file are confidential. Electronic data will be kept in compliance with the Data Protection Act and will be entirely confidential from the point of view of non-availability of such data to employing Trusts and professional regulatory bodies.

1.3 Key dates and contacts

The BSSH office can be approached at any time to commence the registration process but the participating surgeon is advised to allow 4-6 weeks to allow processing of the application in time for the university registration which take place four times a year. There is a specific application form for the BSSH registration process (APPENDIX 8) and copies of this are available from the BSSH office.

- Registrations with University of Manchester can be made in January, April, July & September.
- Course registration is for 1 year with the option to study part-time over 18 months or 2 years. Intention to study part-time is best stated at the outset though it is possible to convert at any point during the course by common agreement
- The Diploma examination will be held twice yearly - in February and October.

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A full list of post-holders and important contacts is included under APPENDIX 1. This list will be subject to change as personnel change over and in any case of difficulty please contact the BSSH office.

2. PROGRAMME OUTLINE

2.1 Programme overview

The Hand Diploma will be delivered by distributed learning alongside a comprehensive series of courses both practical and lecture-based. The Diploma carries 120 credits at Higher Education Level where 1 credit equates to 10 hours of study / assessment.

Most participants will take one year to complete the Diploma from the time of registration and their internal assessments with the eighth course unit which includes the examination being sat following award of the credits for the other course units. The study course units can be sat in any convenient order but the examination course unit can only be sat at the end of the course.

It is intended that the course should be fairly flexible in terms of timing such that part-time study for all or part of the course is possible within the rules. The rules allow a maximum of five years from date of registration to complete the programme. In addition courses and conferences that you have attended previously and within 5 years of the registration date may be eligible for Accredited Prior Learning (APL) allowing exemption from up to 30 credits. It is possible to step off the course and step back on within a reasonable period of time although it is expected that the total time to complete the programme would not exceed 5 years. Individual circumstances will be considered on a case-by-case basis. It is important that you discuss any changes to your status on the programme with your consultant supervisor and with the BSSH office Administrator at an early stage.

The Programme Specification is detailed in Section 2.2. This part of the document summarises the aims and intended learning outcomes of the programme in terms of knowledge, intellectual skills, practical and transferable skills and relates these to the particular teaching methods and assessment instruments. It is a core document of the Diploma programme.

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2.2 Programme Specification

2.2.1 General Description

Award	Programme Title	Duration	Mode of study
Postgraduate Diploma	Diploma in Hand Surgery	12 months full time study	Distributed learning
Postgraduate Diploma	Diploma in Hand Surgery	18 – 24 months of part time study	Distributed learning

School	Medical School
Faculty	Medical & Human Sciences
Awarding Institution	University of Manchester
Programme Accreditation	British Society for Surgery of the Hand
Relevant QAA benchmark(s)	N/A

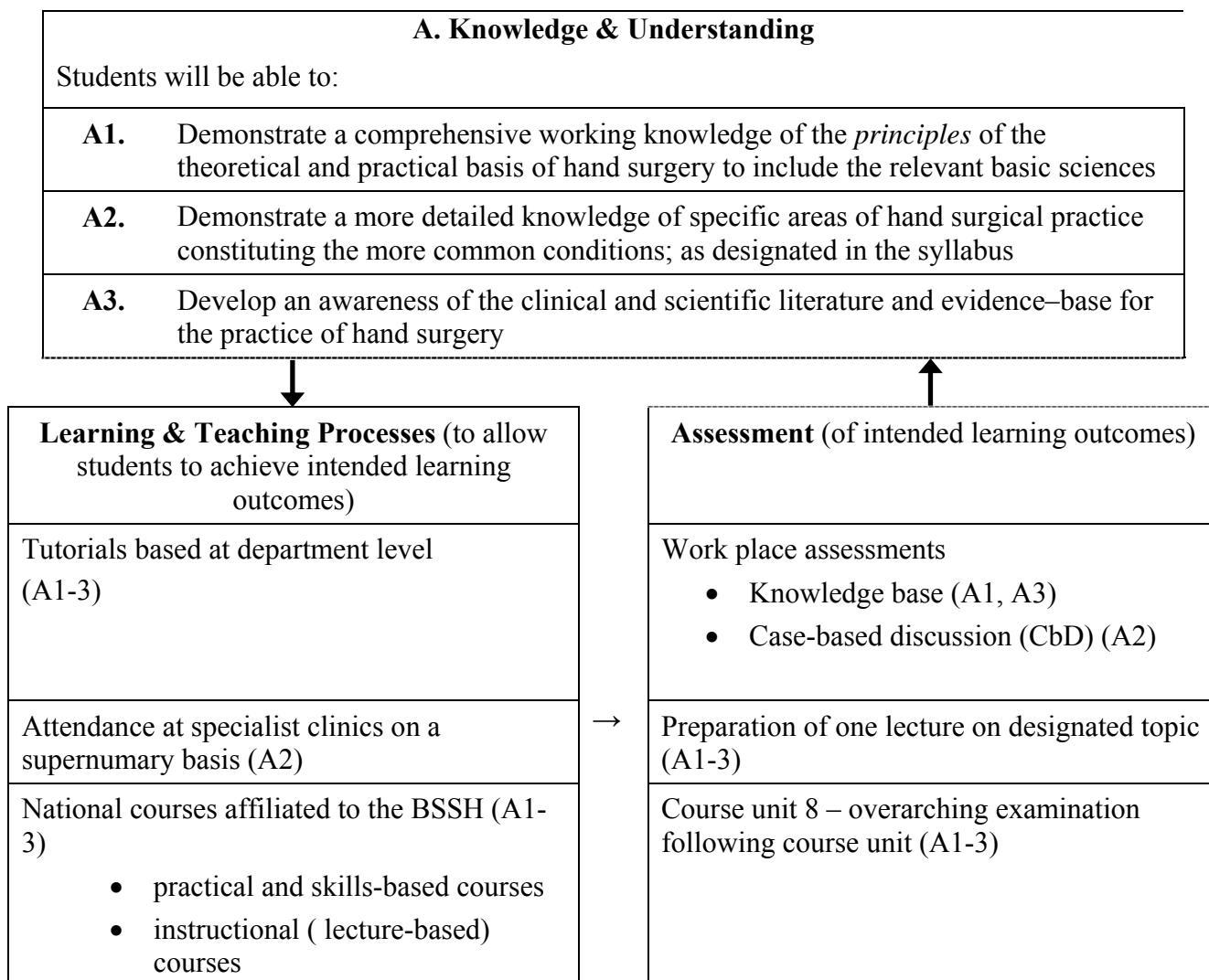
2.2.2 Aims of the Programme

The programme aims to:

01.	Equip the surgeon with the specialist knowledge and range of skills necessary for the practice of hand surgery at the level of the newly appointed Consultant Hand Surgeon
02.	Link and integrate the acquisition of detailed specialist knowledge with the range of practical, technical and professional skills in a way that enhances the care of patients presenting with disorders of the hand
03.	Encourage detailed exploration of the evidence-base for hand surgery practice thus promoting a culture of innovation and scientific enquiry
04.	Provide a model for ongoing integrated learning with appropriate internal and external assessments; elements of which could subsequently be adapted for use in consultant revalidation by the General Medical Council (GMC)
05.	The Programme will effectively define the standard for the practising hand surgeon in the UK allowing the profession to define its own paradigm of specialist education
06.	Promote recognition of Hand Surgery as a postgraduate specialty
07.	Improve the standard of care for disorders of the hand in the United Kingdom

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2.2.3. Intended learning outcomes of the Programme



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B. Intellectual Skills	
Students will be able to:	
B1.	Demonstrate the ability to elicit, synthesise relevant information and plan patient care pathway
B2.	Critically evaluate scientific literature pertinent to the practise of hand surgery
B3.	Demonstrate capacity for higher order thinking and decision making
B4.	Write a review article suitable for publication on a topic of choice
B5.	Demonstrate communication and presentational skills supporting everyday professional practice



Learning & Teaching Processes
Tutorials based at department level to include reflective learning sessions (B 1-5)
Supervised outpatient case-assessment and discussion (B1, 3, 5)
National courses affiliated to the BSSH <ul style="list-style-type: none"> • instructional (lecture-based) courses (B1,2,4)



Assessment
Work place assessment <ul style="list-style-type: none"> • Knowledge-based assessment (B1-4) • Case-based discussion (CbD) (B1-5) • Clinical evaluation exercise (CEX) (B1, 3)
Develop algorithms for certain complex management problems (B1,3)
Course unit 8 – overarching examination following course unit (B1-4)

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C. Practical Skills	
Students will be able to:	
C1.	Acquire competencies relevant to the discipline comprising the planning, counselling, and undertaking of procedures and including managing aftercare and potential complications
C2.	Acquire a range of operative skills appropriate to those expected of the newly-appointed consultant

Learning & Teaching Processes
Supervised operative experience alongside the clinical supervisor and other consultant colleagues (C1,2)
Study of demonstration DVDs of named operative procedures as provided with course materials (C1, 2)
National courses affiliated to the BSSH <ul style="list-style-type: none"> • practical and skills-based courses (C2) • instructional (lecture-based) courses (C1)

→

Assessment
Work place assessment <ul style="list-style-type: none"> • Direct observation of procedure (operation)(DOP) (C1,2)
Prepare and submit operating videos of ‘index’ operations (C1,2)
Course unit 8 – overarching examination following course unit (C1,2)

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D. Transferable Skills and Personal Qualities	
Students will be able to:	
D1.	Demonstrate presentational skills facilitating communication with patients, colleagues and to larger audiences as appropriate
D2.	Demonstrate the ability to work with, organise and lead the team
D3.	Function as a competent physician practising according to Good Clinical Practice guidelines
D4.	Access literature databases and online journal facilities
D5.	Critically evaluate scientific and clinical literature
D6.	Be capable of designing an audit project
D7.	Be capable of designing a research paper

Learning & Teaching Processes
Work place activity based on the Personal Development Plan and identifying individual projects of interest that will assist in developing the above skills (D1,2,3)
Sessions with Consultant Supervisor to develop the personal portfolio along Good Clinical Practice guidelines (GMC) (D1,2,3,4,5,6,7)
Participation in local, regional and national scientific meetings (D1,4,5,6, 7)

Assessment
Work place assessment (D1-7) <ul style="list-style-type: none"> • Knowledge-based assessment • Case-based discussion (CbD) • Clinical evaluation exercise (CEX) • Direct observation of procedure (DOP)
RITA assessments for trainees or Annual appraisal for consultants (D1-3)
Submit review article suitable for publication on topic of choice (D5, 6, 7)



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2.2.4 Structure of the Programme

Course unit No	Subject	External Courses (credit points)	Departmental Tutorials	Private Study / Clinical work	Credit Points for course unit
1	Basic sciences pertinent to the upper limb / Rehabilitation	2 (20 hrs)	1 (10 hrs)	12 (120 hrs)	15
2	Skin & soft tissues / Dupuytren's contracture	2 (20 hrs)	1 (10 hrs)	12 (120 hrs)	15
3	Fractures and joint injuries of the hand and wrist including wrist instability	2 (20 hrs)	1 (10 hrs)	12 (120 hrs)	15
4	Osteoarthritic and inflammatory disorders of the hand and wrist	2 (20 hrs)	1 (10 hrs)	12 (120 hrs)	15
5	Tendon disorders	2 (20 hrs)	1 (10 hrs)	12 (120 hrs)	15
6	The Child's Hand / Tumors / Vascular disorders	2 (20 hrs)	1 (10 hrs)	12 (120 hrs)	15
7	Nerve disorders	2 (20 hrs)	1 (10 hrs)	12 (120 hrs)	15
8	- Application of Practical Skills - Assessment by Examination			14 (140 hrs) 1 (10 hrs)	15
					120

Course Unit 1-7 may be taken in any order but Unit 8, which includes the over-arching assessment, can only be taken following completion of units 1-7. All units are compulsory
One credit equates to 10 hours of study

2.2.5 Student induction, support and development

Existing Trust-based induction programmes at commencement of clinical post.
Participating surgeons and consultant supervisors resource packs to be distributed at commencement of course.
System of Course unit Leaders / Advisors to back up the internally taught courses and support the consultant supervisors as issues and questions arise.
Further details are available in the *Operations Manual* and this *Programme Handbook*.

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2.2.6 Curriculum map of Course units against intended learning outcomes of the Programme

Course Unit Title and Code (including dissertations and other programme components)		Knowledge & Understanding	Intellectual Skills					Practical Skills		Transferable Skills & Personal Qualities									
Code	Course Unit title	C/O	A1	A2	A3	B1	B2	B3	B4	B5	C1	C2	D1	D2	D3	D4	D5	D6	D7
1	Basic sciences pertinent to the upper limb and rehabilitation <i>- prepare and give departmental lecture on rehabilitation topic</i>	C	DA	DA	DA	-	DA	-	-	-	-	-	A	-	D	D	D	-	-
2	Skin & soft tissues / Dupuytren's contracture <i>- submit video demonstrating operation for Dupuytren's contracture</i>	C	DA	DA	DA	DA	DA	DA	-	DA	DA	DA	D	D	D	D	D	-	-
3	Fractures and joint injuries of the hand & wrist Wrist instability <i>- submit algorithm of clinical management problem pertinent to course unit</i>	C	DA DA	DA -	DA	DA DA -	DA DA A	DA DA A	- - -	DA DA -	DA	DA	D A	D A	D A	D A	D A	-	-
4	Osteoarthritic and inflammatory disorders of the hand and wrist <i>- design a research project</i>	C	DA	DA	DA	DA	DA	DA	-	DA	DA	DA	D A	D A	D A	D A	D A	-	A
5	Tendon disorders <i>-prepare review article on topic choice</i>	C	DA	DA	DA	DA	DA	DA	-	DA	DA	DA	D A	D A	D A	D A	D A	-	-
6	The Child's Hand / Tumors / Vascular disorders <i>- design an audit project</i>	C	DA	-	-	DA	DA	DA	-	DA	DA	DA	D A	D A	D A	D A	D A	A	-
7	Nerve disorders <i>- prepare critique of papers from a scientific conference</i>	C	DA	DA	DA	DA	DA	DA	-	DA	DA	DA	D A	D A	D A	D A	D A	-	-
8	Theory and practical skills assessment	C	A	A	A	A	A	A	-	A	A	-	A	-	-	-	A	-	-

Legend for cells:

D = intended learning outcomes of the programme are taught or developed within this course unit

A = intended learning outcomes of the programme are assessed in this course unit

C= compulsory course unit

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2.2.7 Eligibility criteria

Candidates must be able to satisfy the general admissions criteria of the University and of the School in the following ways:

- Candidate should be a practising surgeon with a qualification that is registered with the GMC
and
- Candidate should have passed the Intercollegiate Specialty examination in either orthopaedic or plastic surgery (FRCS(Orth) or FRCS(Plast))
and
- Candidate will be about to undertake, be undertaking or have undertaken 6 months in advanced hand surgery training in the United Kingdom (following successful completion of Intercollegiate Specialty examination in either orthopaedic or plastic surgery (FRCS(Orth) or FRCS(Plast)))

2.3 Definition of required standard

The Hand Diploma programme aims to equip you with the skills expected of the specialist Hand Surgeon on their first day in independent practice.

The course is designed to encourage the development and application of higher order thinking in your practice of hand surgery. It is helpful to think of the elements of learning as fitting together in a hierarchical fashion:

Level 1: *Knowledge*

The ability to recall a range of facts and experiences both specific and generalised.

Level 2: *Understanding*

The ability to comprehend the meaning of acquired knowledge and to interpret, translate and extrapolate from this.

Level 3: *Application*

The ability to apply knowledge and comprehension in different situation and to infer conclusions from facts

Level 4: *Analysis*

The ability to identify key components and to dissect arguments

Level 5: *Synthesis*

The ability to combine elements and to produce coherent logical conclusions

Level 6: *Evaluation*

The ability to assess, justify, criticise and defend a hypothesis, theory or argument.

This is placed at the top of the hierarchy as it requires elements of all the other levels to be carried out successfully.

At Diploma level most learning goes on at Levels 4-6 and in essence comes down to developing the following skills:

Critical appraisal – the ability to analyse complex theories and evaluate both the positive and negative aspects of the component parts

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Evaluation - the ability to judge the worth of scientific literature in relation to the findings of critical appraisal

Reflection – the ability to reflect on your own clinical practice and to recognise strengths and weaknesses

These skills are an integral part of the stated learning outcomes for each individual course unit in the programme and are stated as search in the learning materials for each course unit.

You will find full details of what you are expected to achieve in the Programme Specification (Section 2.2) and in the details of individual Course units (Appendix 3) but in general terms you should be able to demonstrate:

- That you have built on your prior knowledge and experience for example from your previous undergraduate and clinical experience
- Ability to deal with complex issues both systematically and creatively and to make sound judgements in the absence of complete data
- Ability to communicate conclusions clearly to specialist and non-specialist audiences
- Ability to work as an independent, reflective practitioner
- That you can work effectively in teams and individually

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3. PROGRAMME RESOURCES AND ASSESSMENTS

Course unit specifications with readings materials are regularly updated and can be downloaded from www.BSSH.co.uk (password protected). The course units are currently detailed in APPENDIX 3.

3.1 Learning resources

Most of you will be well used to self-directed study having recently taken the FRCS(Orth) or FRCS(Plast). The following advices are respectfully offered:

- Time management skills will be key to success in this programme and it will be important to sit down with your consultant supervisor and identify the times when you can both commit to the tutorial sessions, supervised clinics and supervised operating sessions.
- Aim to spend 12 hours per week in private study – at least some of this time should be scheduled in your formal timetable
- There are specific texts available that will help you to get the most out of the time you have available for study e.g. Northedge A (1990) The Good Study Guide. Open University, Milton Keynes
- Prepare for tutorials – these are meant to be interactive sessions reflecting an exchange of knowledge and ideas between senior professionals
- Consider making brief summary notes / cards / mindmaps of material you have studied. Pass rates for examinations in general are higher for candidates who assimilate and order their knowledge base.

Access to scientific and clinical journals

Your local hospital library should give access to internet journals stocked by that library via ATHENS. This is a search engine which allows access to full text versions of articles in many key journals. All NHS employees are entitled to free access to ATHENS and your Trust's librarian or educational advisor will help you to set this up and show you how to use the programme. You will be given a username and password and may then access the journals belonging to this facility from any computer linked to the Internet using your password. Many journals nowadays will allow purchase of individual articles for a one-off fee. Alternatively individual articles can be purchased in the traditional way via order made by the interlibrary loans service.

You may find it useful to access medical information sources via the Internet. There are a number of useful websites such as Medscape www.medscape.com or PubMed www.ncbi.nlm.nih.gov/PubMed/. These give you access to peer reviewed clinical articles, literature reviews on medical specialties, practice guidelines and news.

It is intended that the participating surgeon will have the library and educational resources of the Trust in which they work. These resources will have been inspected (and judged satisfactory) as part of the rolling programme of 5-yearly inspections of the Interface Committee in Hand Surgery or Specialist Advisory Committees in Plastic or Orthopaedic Surgery. In future these inspections will be conducted in

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consultation with the above bodies but under the aegis of the Postgraduate Medical Education Training Body (PMETB).

3.2 Marked assignments

All course units are compulsory and the entirety of the subject matter will be assessed in the overarching examination (Course Unit 8). There is room within the syllabus to explore individual areas of interest namely in the submitted coursework as detailed under the individual course units.

3.3 List of practical, instructional and scientific courses/conferences

A comprehensive list of affiliated courses is given in APPENDIX 2. It is not expected that you go on all of these but should plan to attend a number after due discussion with your consultant supervisor. Many of you will already have attended a number of these courses at the time of enrolment and you can claim credits for those you have attended within 5 years of this enrolment date as long as you can produce evidence of your attendance.

3.4 Formal assessments

In general terms, the standard expected is that of the practising hand surgeon on their first day in consultant practice.

Internal assessments

Modules 1-7 include a series of work place assessments (WPAs) conducted by the local consultant supervisor. Standardisation of the marking scheme will be achieved by detailed initial advice including standard marking proforma. Mark sheets are submitted 'on line' or in hard copy to the BSSH office and kept on the participating surgeon's file. Details of the individual assessment tools namely the knowledge based assessment (KBA), clinical evaluation exercise (CEX), case-based discussion (CbD) and directly observed procedure/operation (DOP) are listed under APPENDIX 4. Specific advice on the conduct and requirements of these assessments can be obtained first from the MMC web site www.mmc.nhs.uk/ and if there are particular issues arising then the regional advisor to the programme.

In total, for the 7 taught Modules, there are a recommended x7 knowledge based assessments (KBA), x4 directly observed procedures (DOP), x3 case-based discussions (CbD), and x4 clinical evaluation exercises (CEX). In addition Module 1 requires the preparation and delivery of a lecture to the department and Module 7 requires the participant to prepare a critique of papers from any relevant scientific meeting to present within the department.

External assessments

It is important to the validity and reproducibility of this programme that all participants should be marked to the same standard. This is an important part of our quality assurance framework. To this end there are a number of elements in the course units that require external marking by members of the programme committee (members of the Hand Diploma Subgroup). Specifically, the participant is asked in Module 2 to prepare a DVD of himself/herself undertaking an operation for

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Dupuytren's contracture, in Module 3 to develop an algorithm for management of a specified disorder and in Module 5 to prepare a review article on a topic of choice such as would be suitable for publication in the hand surgery literature.

A Record of Coursework and Assessments book is provided with your induction materials. This is an important document that lists and records all of the assessments on the course. Further details on its completion are detailed in the booklet itself.

3.5 Examination

On successful completion of seven topic-based course units of the course with accumulation of the necessary credits the course participant will be eligible to sit for the Hand Diploma examination. The examination forms the assessment for Module 8. This Module runs throughout the programme and involves the participating surgeon gaining theoretical knowledge and practical skills relating to hand surgery. The Module is assessed by a final overarching examination that must be passed in order for the surgeon to be awarded the Diploma. The examination is a summative assessment of the entire body of learning and conducted at the standard of what would be expected of the consultant hand surgeon in the first day of consultant practice. There are no optional elements within the examination as this is a professional qualification.

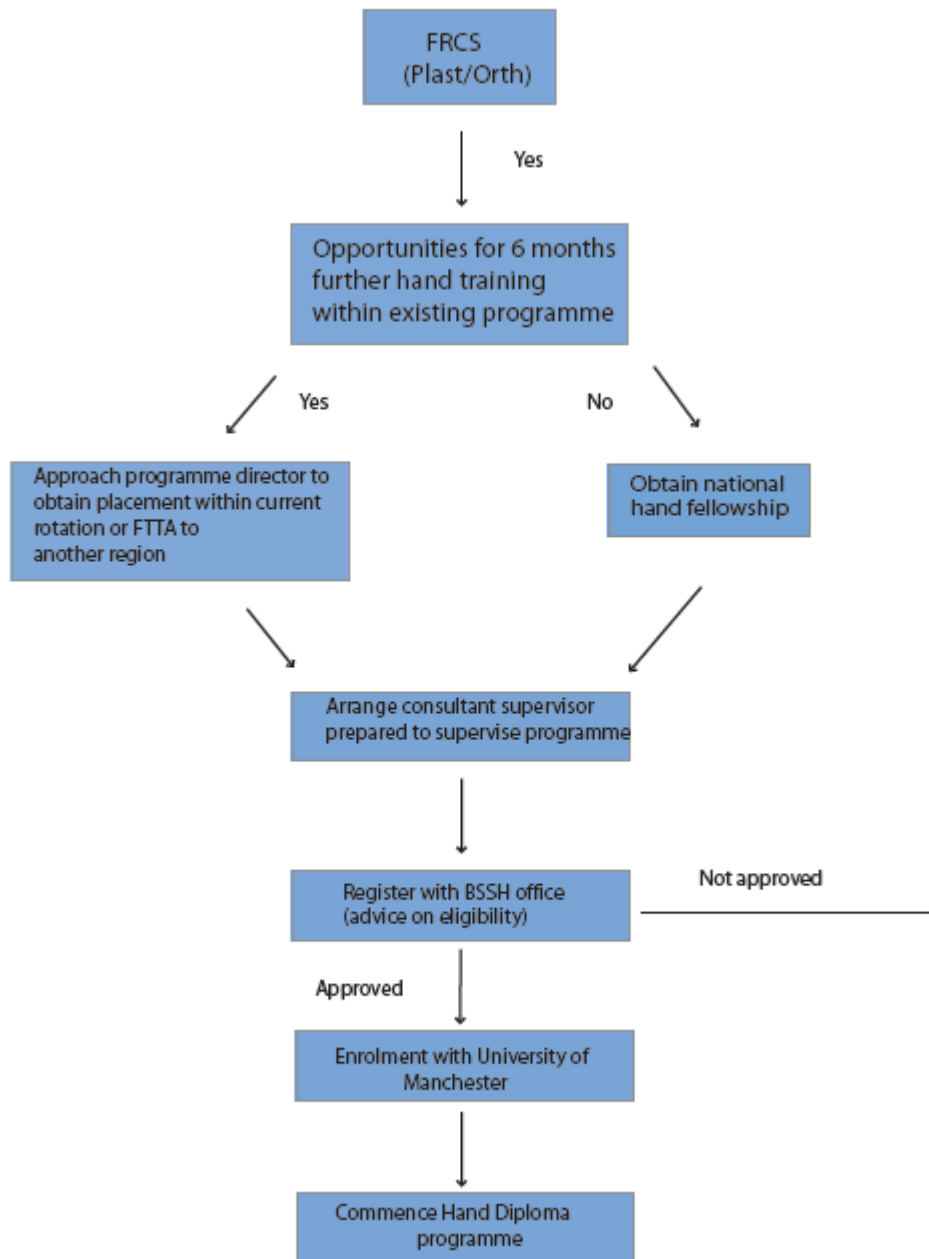
Consistent with existing conventions of the universities for postgraduate diplomas the pass mark in this examination will be 40%.

There will be two components of the examination which is sat on two consecutive days and consists of a paper of 'best answer' multiple choice questions (MCQs) and then a practical / clinical examination on the subsequent day comprising a series of OSCE-style stations. These stations will have some clinical 'short' cases but there will be no 'long' cases and no unstructured vivas. Both components of the examination must be passed at the same sitting to be successful overall. There is no cross-compensation or carry-over of marks gained in one section to the other. The examination can be resat on one further occasion following a previous failure. This examination will be held twice yearly in Manchester.

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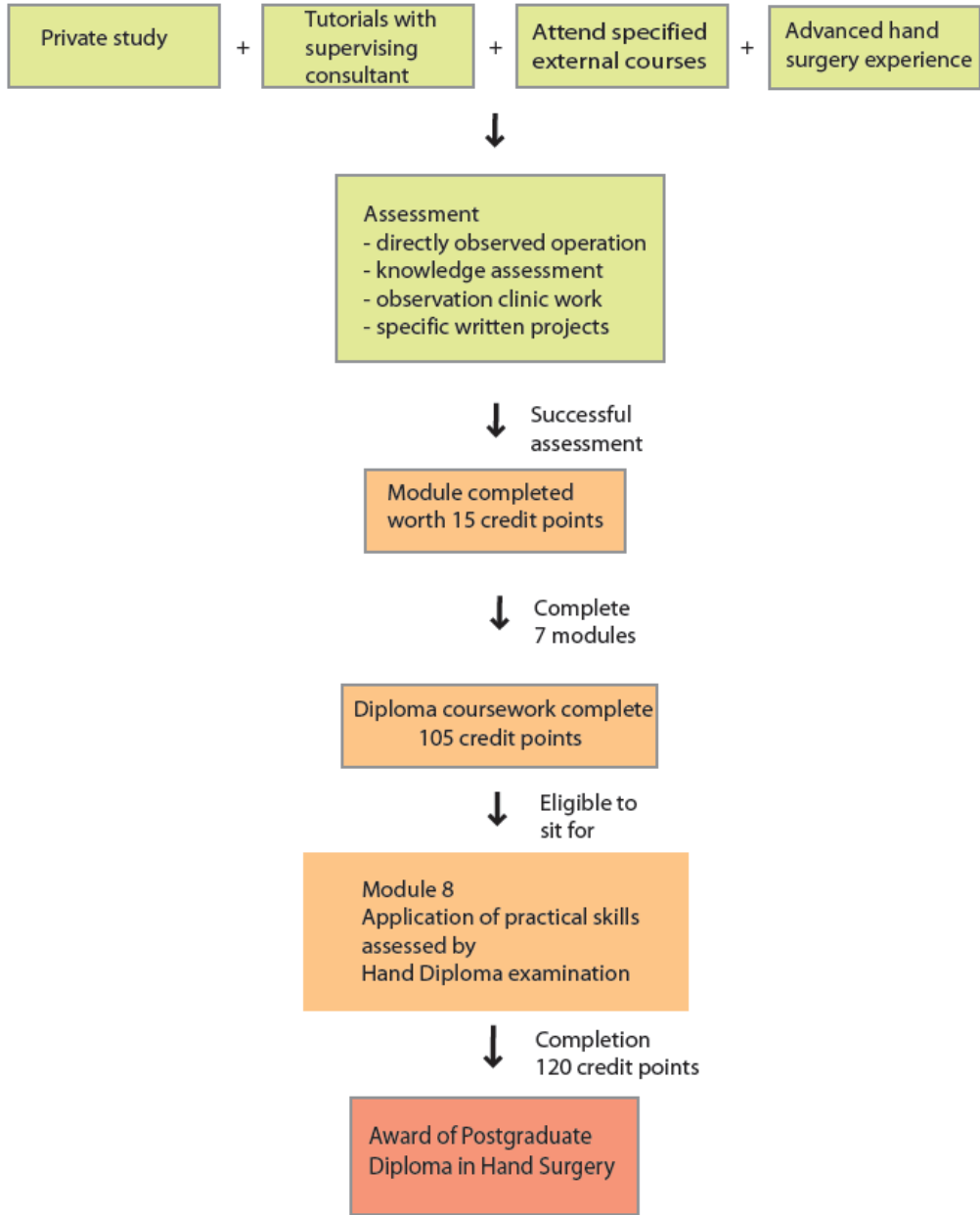
4. PARTICIPATING SURGEON PROGRESS AND ASSESSMENT

4.1 Registration pathway



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4.2 Summary of course structure leading to award of Postgraduate Diploma in Hand Surgery (Dip Hand Surg)



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4.3 Responsibilities of participating surgeon

It is your responsibility to ensure that you :

- Have read and understood the structure of the Hand Diploma and rules governing the programme. If there are aspects which are unclear or matters that cannot be dealt with locally then there are a group of regional advisors to the programme who are happy to be approached for advice (list available from BSSH office)
- Approach and have the express support and commitment of an appropriate Consultant Supervisor and that together you plan your study and weekly timetable to meet the timeline and requirements of the course programme.
- Schedule meeting with the Programme Director of your SpR programme to ensure that the Diploma requirement of 6 months of advanced hand surgery training post FRCS(Plast)/(Orth) can be appropriately accommodated
- Notify your supervisor of dates of annual and study leave.
- Initiate the work placed assessments (WPAs) at such time as you feel ready to complete them.
- Ensure that paperwork pertaining to work placed assessments is completed and returned to the BSSH office
- Mention any problems that you are experiencing at an early stage. You must specifically raise any concerns you have about your progress and request additional support as appropriate.
- Keep written records of all correspondence with your supervisor, including emails and notes of telephone conversations, as well as any more formal arrangements or agreements.

4.4 Policy on plagiarism

A full statement of the policy on plagiarism is given in APPENDIX 5

4.5 The University Regulations for taught Diploma programmes

UoM regulations are available at www.manchester.ac.uk/policies/

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5. PARTICIPANT SUPPORT AND GUIDANCE

5.1 Consultant supervisors

The consultant supervisor will be a hand surgeon registered for the purpose with the BSSH. The supervisor(s) must be an orthopaedic or plastic surgeon with a major interest and practice in hand surgery. The department must already have been recognised for the teaching of hand surgery at FRCS (Orth/Plast) level and be in possession of a satisfactory review by the relevant SAC / PMETB. Departments that participate in the Diploma programme will be subject to the usual 'rolling' programme of quality assurance inspections that will dovetail with the ongoing Interface Committee in Hand Surgery/PMETB inspection process. For the purpose of registration there must be a named Consultant Supervisor for each registered candidate but it may well be that tutorial work is shared between the consultants of a given department or group of departments according to their particular interests.

The consultant supervisor or their colleague should meet with the participating surgeon on an approximately weekly basis to hold a tutorial relevant to the course unit of current study. There needs to be prior clear agreement on the frequency, length and nature of face-to-face meetings and other contacts. A brief record should be made in the Coursework booklet by the supervisor and filed to the Programme Administrator confirming the content of each tutorial. Credit points will be allocated on successful return of these forms. It is important that both supervisor and participant keep their own copy of these forms and it is ultimately the responsibility of the participant to ensure these are returned expeditiously. In addition it is important that both parties should keep copies of all correspondence and keep copies of key areas covered in tutorials and meetings.

It is recognised that there may be some sections of the syllabus which are not part of the Consultant Supervisor's day to day practice. It is anticipated that tutorials would be arranged between two or more colleagues in a given department and that both plastic and orthopaedic departments are likely to need to call on their opposite numbers to deliver the whole of the programme. Thought needs to be given at the outset as to how this can be made to work within a given region and firm commitments made by those individuals who choose to involve themselves. Availability of the consultant supervisor is key to making this distributed learning programme effective. It is recommended that any consultant thinking of taking on such a role should have this formally incorporated into and recognised on their job plan. There needs to be a period of time each week devoted to the tutorials or internal assessments. Tutorial time needs to be protected and free of competing duties.

The consultant supervisor will meet with their participating surgeon on average once per week excepting holidays, study leave etc. Each course unit of the course will be delivered 'in house' within the department in which the trainee and their consultant are working. The weekly meeting will typically consist of a tutorial to discuss and develop knowledge and understanding of material that has been read in preparation. *For each course unit there should be 4 tutorials covering the range of the course material.* This corresponds to 28 tutorials to be arranged over the 12 months of the Diploma programme although there is nothing to stop individuals choosing an alternative timetable. Time spent on internal assessments is over and above that allocated to the tutorials. The named supervisor does not need to personally deliver each and every tutorial on the course but is ultimately responsible for making sure that between the consultant colleagues of a department that the course has been delivered in the specified format. The participating student

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will have access to their supervisor by e-mail and by phone at all times except when the supervisor is on leave.

A system of regional advisors/mentors has been put in place to support those who are participating in the Hand Diploma. These surgeons will be happy to advise on any aspect of the programme and their names are available from the BSSH office. There may be value at the outset of the programme in a 3 way meeting between the participating surgeon, consultant supervisor and regional advisor – for the purpose of clarifying the conduct and structure of the programme. It is envisaged that in the early days of the programme the regional advisors will need to provide significant support but that this need will reduce as time passes and the format becomes familiar to all. Supervisors may benefit from familiarisation with the content of UoM Supervisor Awareness and Equal Opportunities courses although most will have already undertaken equivalent courses as part of their NHS duties.

Supervisors will also be supported by provision of written materials that will detail what is required in terms of course content, appraisal and internal assessments

Responsibilities of the consultant supervisor:

The consultant supervisor should:

- Be available, constructive and supportive
- Try to identify what has been done well in addition to what needs improving
- Have appropriate expertise and experience in the practise of hand surgery
- Be widely read with current knowledge of relevant research and clinical trends
- Advise participating surgeon of their leave periods so that tutorials can be planned appropriately
- Advise on realistic timelines – don't leave it all to the end of the attachment on the hand surgery firm
- Act as a mentor figure aiming to support, educate and motivate the participating surgeon in pursuit of the Diploma programme
- Be prepared to advise the Regional Advisor of any important difficulties being encountered either in the performance of the participating surgeon or delivery of the programme

5.2 Participating surgeon feedback

The Programme organisers are keen to receive constructive feedback and will seek both formal and informal feedback from each course participant during and at the conclusion of their programme as detailed under APPENDIX 8. The Hand Diploma as originally conceived will evolve and adapt rapidly in its early years to take into account and incorporate educational developments as detailed by PMETB.

5.3 Participating surgeon representation

Trainee representatives sit on the Education & Training Committee of the British Society for Surgery of the Hand. The current representatives contact details are available from the BSSH office Administrator and these individuals may be approached concerning issues of wider relevance. The trainee representatives are not in a position to represent course participants in

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respect of individual problems or complaints and such problems should be channelled as advised under Section 5.5.

5.4 Withdrawing from the programme

Notification of withdrawal from the programme should be made to the Administrative Officer at the BSSH office. There will not normally be any refund of fees paid except in the instance where a formal complaint or appeal has been made and that complaint or appeal has been upheld after due process of investigation. Disinclination to continue the Programme because of inability to keep up with the course work will not constitute grounds for refund of fees.

5.5 Appeals and complaints

There is a formal process for complaints and appeals although it is intended that the majority of issues arising will be resolved informally. Details are given in APPENDIX 7

5.6 Equal opportunities policy

See APPENDIX 6

5.7 Occupational Health Policy

Policy is that of the Occupational Health department of the Trust in which you work. Any issues pertaining to health matters should be directed in the first instance to Occupational Health. It is the participating surgeon's responsibility to notify the course administrator of any condition which is likely to impact on his or her ability to complete the course within schedule.

5.8 Disability and special needs support

If you have a learning disability or any other condition or disability that would place you at a disadvantage as a student, whether with studying or with any part of the assessment, it is important to let us know. Please tell us about your situation on the application form that you complete initially or contact the Director of Education as soon as you start the programme so appropriate help can be arranged. Our Disability Guide is outlined in APPENDIX 6

If you need to discuss any further requirements, please contact the Programme Director.

5.9 Personal development planning

At the beginning of the course it is required that you sit down with your consultant supervisor and together plan the time-course of the programme along with provisional dates by which you intend to sit the respective assessments. This should then serve as an indicator if you start to fall behind and required additional time or other help. It is helpful if you can review progress on an approximately monthly basis with your supervisor.

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You should aim to keep an up to date operating logbook to inform your appraisal process. Although surgical skills are assessed as part of the Hand Diploma it is not the current intention to have you complete a checklist of different operations or competencies. It will be for you to decide which operations you wish to demonstrate as part of your internal assessments and you will initiate that process in consultation with your supervisor.

In addition you should provide copies of your regular interval appraisals and RITA assessments as these occur. It is good practice to make and maintain an organised portfolio with your essential documentation easily to hand.

5.10 Fees

The fee for the Hand Diploma will be kept to the lowest level possible by significant and generous subsidy, courtesy of the BSSH. The exact fee will be available on application to the BSSH office. The fee covers the costs of enrolment and quality assurance procedures of the University, course materials as provided from the BSSH and the cost of sitting the Examination (Module 8). It will cover the costs of resitting the Examination on one occasion if needed. It will include the award of the Diploma Certificate by the University. The fee does not cover the costs of attending the various courses and conferences linked to the Diploma.

The Consultant Supervisors are not remunerated for their important contribution but participation will be acknowledged in their job plan as part of their teaching activities.

You are required to pay the course fee in advance of commencing your studies and should normally be sent with your completed application form. Copies of this form are available from the BSSH office and a specimen form is shown in Appendix 8.

Once payment is received we will give you a password that gives you access to the web site from where relevant learning materials can be downloaded and will forward to you written and audiovisual materials needed for the course.

At the time of launch the BSSH has made a major financial commitment to underwrite and subsidise the true costs of running the Hand Diploma and the package as offered is, we feel, highly advantageous to the participating surgeon.

5.11 Sources of financial help

You may be able to obtain financial help from your Postgraduate Dean (trainees), NHS Trust (consultants).

5.12 Notification of change of address

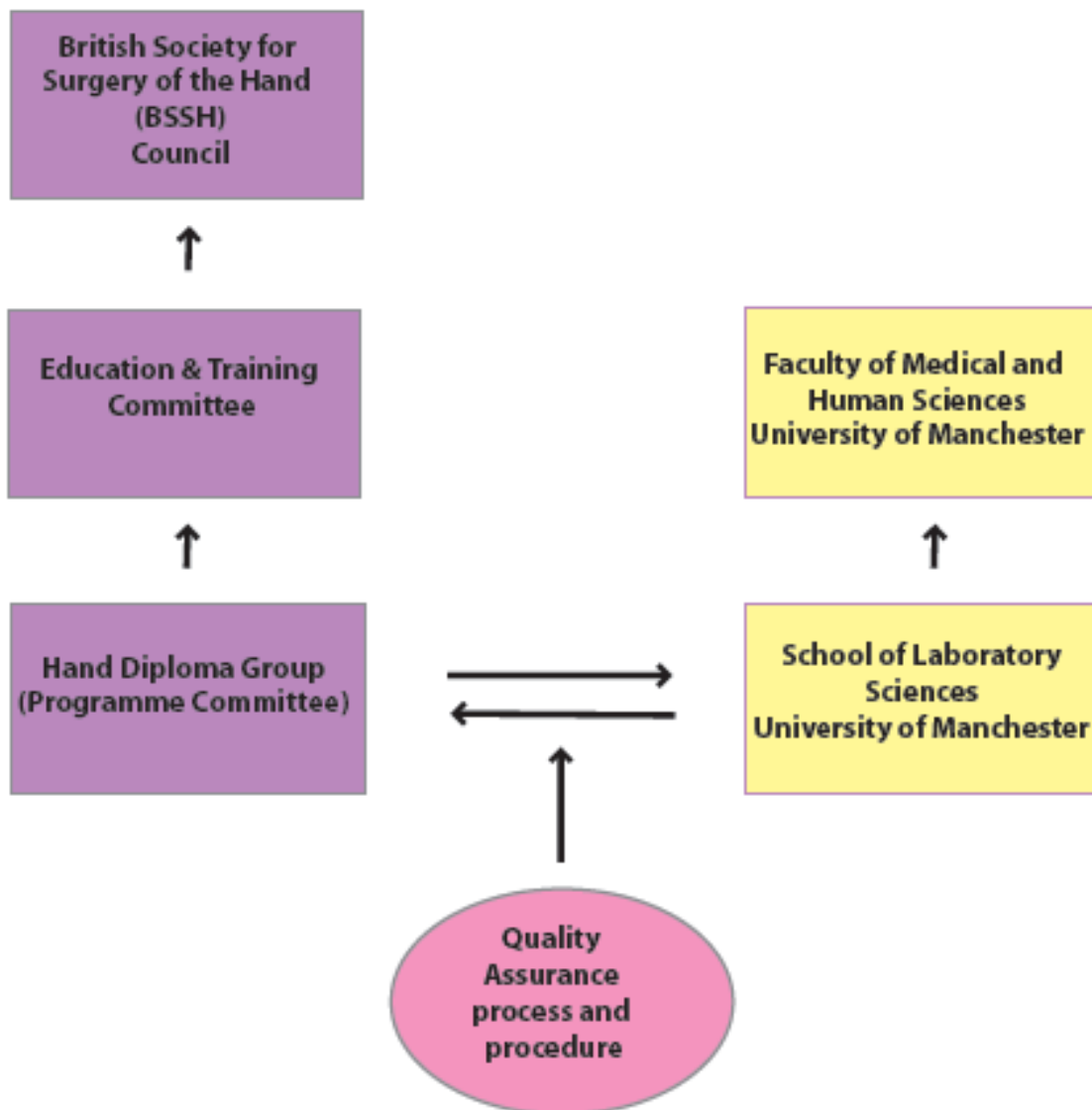
We will need to contact you at various times during the programme and we therefore need to have your current details on file. If you do change work or home address, please let the Programme Administrator know as soon as possible (contact details are given in Section 1.3)

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Postgraduate Diploma in Hand Surgery**

6. PROGRAMME MANAGEMENT

6.1 Role of the Hand Diploma Subcommittee

The Hand Diploma Subcommittee meets on a regular basis to advise on all aspects of the programme and to make recommendations for the consideration of the Education & Training Committee of the BSSH. The Education & Training Committee in turn reports to and advises the BSSH Council. Individual members of the Hand Diploma Subcommittee will have a mentoring role to the supervising consultants on a named and allocated basis. In this capacity they will act as a point of contact for any queries pertaining to the conduct and implementation of the programme.



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APPENDIX 1

Key Contacts of the Programme

Programme Director

Current: Mr Rupert Eckersley

Contact details:

Mr R Eckersley FRCS
Consultant Hand Surgeon
Plastic Surgery Department
Chelseae & Westminster Hospital
369 Fulham Road
London SW10 9NH
Tel: 0207 586 6410
Fax: 0207 586 6410
Email: sheila.wilkinson@hcahealthcare.co.uk

- Chairs Hand Diploma subgroup
- Member of Board of Examiners
- Lead on convening and co-ordinating examination
- Member of Education & Training Committee (liaison with its Chairman)
- First point of contact for all enquiries not otherwise delegated
- Represents the BSSH on School of Medicine Postgraduate Committee and acts as primary point of contact for the University

Hand Diploma Subgroup

Current:

Mr Rupert Eckersley

Mr David Evans

Miss Lore Feldberg

Mr Geoff Hooper

Miss Vivien Lees

Mr Gavin Miller

Mr Mike Waldram

Contact details:

See BSSH List of Members handbook/BSSH website

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Members have convened 3-4 times per year since 2003 and:

- Develop policy for discussion and approval at BSSH Council
- Develop and update syllabus and course units on a rolling basis
- Write MCQs for the examination bank
- Each member will have named responsibility for individual supervising surgeons and will undertake to make themselves available by phone for advice as needed
- Submit minutes of meetings to School of Medicine Postgraduate Committee as part of Quality Assurance process

BSSH Course Administrator

Current: Miss Angela Rausch (BSSH office)

Contact details:

Miss A Rausch
Senior Course Administrator
British Society for Surgery of the Hand
Royal College of Surgeons of England
35-43 Lincoln's Inn Fields
London WC2A 3PE
Tel: 0207 831 5162
Fax: 0207 8314041
email: angela.rausch@baps.co.uk

- Day to day administration of all items pertaining to individual participating surgeons
- Handles initial and subsequent contacts with participating surgeons and their consultant supervisors
- Ensures all written and audiovisual materials pertaining to the coursework is distributed in an efficient manner. Provision of information on national courses.
- Maintains confidential file on each participating surgeon
- Receives and collates on-line returns pertaining to individual internal assessments
- Keeps record and confirms in writing completion of each course unit
- Keeps the examination bank questions under secure conditions
- Provides logistic support for conducting the examination

Graduate Office Administrator University of Manchester

Current: Mrs Alison Howard

Contact details:

Mrs A Howard
Graduate Administrator
The School of Medicine

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The University of Manchester
Room DG33, Stopford Building
Oxford Road
Manchester M13 9PT
Tel: 0161 275 1463
Fax: 0161 275 5584
email: A.Howard@manchester.ac.uk

- Liases with BSSH Course Administrator
- Responsible for registration of candidate with university
- Co-ordinates with other university departments regarding diploma certification

BSSH

President

Current: Professor Joseph Dias

Contact details:

Professor J Dias MD FRCS
President British Society for Surgery of the Hand
Consultant Orthopaedic Surgeon
Glenfield Hospital
Grobby Road
Leicester LE3 9QP
Tel: 0116 256 3089
Fax: 0116 250 2676

email: joseph.dias@uhl-tr.nhs.uk

- The President will advise on and oversee strategic decisions pertaining to the Hand Diploma (member of Education & Training Committee)
- Chairs BSSH Council meetings in which matters of principle pertaining to the Hand Diploma will be discussed
- Communicates with the membership on matters pertaining to the Hand Diploma

Treasurer

Current: Mr Ian Trail

Contact details:

Mr I Trail MD FRCSEd FRCSE
Treasurer BSSH
Consultant Hand Surgeon,
Wrightington Hospital for Joint Diseases
Hall Lane
Appley Bridge,
Lancashire WN6 9EP
Tel : 0125 725 6248
Fax: 0125 725 6441
email: uplimb@wrightington.org.uk

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- Oversees the financial case for the Hand Diploma
- Assists in financial negotiations with UoM
- Advises on fee structure

Chairman of Education & Training

Current: Mr David Warwick

Contact details:

Mr D Warwick FRCS(Orth) EurDipHandSurg
Consultant Hand Surgeon
Southampton University Hospital
Southampton SO16 6YD
Tel: 023 8079 5212
email: djwarwick@compuserve.com

- Chairs the Education & Training Committee to which the Hand Diploma Subgroup report
- Liaises with the Hand Diploma lead (where different person)
- Leads discussion on development of the Hand Diploma within the BSSH
- Communicates with BSSH membership and with trainee representatives regarding the Diploma

Chairman of the Instructional Courses

Current: Professor Timothy David

Contact details:

Professor T Davis
Consultant Hand Surgeon
Queens Medical Centre
Nottingham NG2 6HG
Tel: 0115 924 9924
Fax: 0115 970 9921
email: tim.davis@mail.qmcuh-tr.trent.nhs.uk

- Convenes and organises the international instructional courses around which the Diploma programme is based
- Liases with the Chairman of Education & Training Committee who is also member of the Faculty of the Instructional Courses
- Provides reports on the courses as required by the QA framework

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UoM

Internal Advisor to the Programme

Current: Miss Vivien Lees

Contact details:

Miss VC Lees MD FRCS(Plast)
Consultant Plastic and Hand Surgeon
Department of Plastic Surgery
Wythenshawe Hospital
Southmoor Lane
Wythenshawe
Manchester M23 9LT
Tel: 0161 291 6648
Fax: 011 291 6381
Email: vlees@dsl.pipex.com

- Committee member of the University School liaising between University and BSSH representatives
- Represents University on Examinations Board

External Advisor to the Programme

Current: Professor John Stanley

Contact details:

Professor JK Stanley FRCS FRCSEd
Consultant Hand Surgeon,
Wrightington Hospital for Joint Diseases
Hall Lane
Appley Bridge WN6 9EP
Tel : 0125 725 6259
Fax: 0125 725 6441
email: profstanley@btinternet.com

- Reviews the written submissions made by BSSH to the UoM with comments on feasibility and advisability provided to the UoM.

Quality Enhancement Officer

Current: Miss Emma Hilton

Contact details:

Miss Emma Hilton
Senior Collaboration Adviser
Teaching, Learning and Assessment Office
Academic Quality Unit
The University of Manchester
John Owens Building
Oxford Road
Manchester M13 9PL

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Phone: +44 (0)161 275 2047

Email: Emma.Hilton-2@Manchester.ac.uk

- Advises on matters pertaining to quality assurance issues

Board of Examiners

Composition:

Representative of Manchester University (Internal Advisor) (Chair)

Chairman of the BSSH Education and Training Committee

Hand Diploma Programme Director

Chairman of the BSSH Instructional Courses

Chairman of the Interface Committee in Hand Surgery

FESSH Chairman of Education

Administrative representative of UoM (providing minutes)

External examiner

External examiner

Current: Professor Frank Burke

Contact details:

Professor FD Burke MB BS FRCS

Consultant Hand Surgeon

Pulvertaft Hand Centre

Derbyshire Royal Infirmary

London Road

Derby DE1 2QY

Tel: 01332 254751

Fax: 01332 291425

email: frank.burke@virgin.net

- Advises on matters pertaining to reproducibility and validity of the internal ‘in-house’ assessments
- Advises on matters pertaining to the external Examination to be held in Manchester twice yearly

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APPENDIX 2

List of courses affiliated to the BSSH and recognised for credits in the Diploma Course

One credit points on the Diploma programme equates to approximately 10 hours of study. These are not the same as the CME points that you are used to gaining. Diploma credit points have been allocated as follows with the CME rating in brackets. Where 2 rather than 1 points have been allocated this reflects the additional preparation and reflection time you will spend as a result of participating in this particular course i.e. there is greater weighting towards the core instructional course series and the practical courses. You should take the opportunity to attend other courses according to your interests within the subject. You should aim to acquire between 14 points on these courses. These credits are flexible between modules.

Core Lecture Courses

Instructional Courses in Hand Surgery

Series of 6 two day courses running over 3 years covering 12 course units

- *Skin and soft tissue, infection, Dupuytren's disease*
- *Tendon injury, paralysis, rehabilitation*
- *Nerve injury, compression and pain*
- *Fractures, joint injuries, arthritis*
- *Tumors, the child's hand*
- *Wrist, occupational & medicolegal aspects*

3 credits each

Scientific Meetings

BSSH autumn and spring meetings

2 credits

FESSH meeting

2 credits

IFSSH meeting

2 credits

Practical skill acquisition courses

Anatomy of the Hand and Upper Limb, Guy's Hospital, London

2 credits

Fracture fixation Course, Derby

2 credits

Leicester Fracture fixation Course

2 credits

Mini Fragment Workshop, Derby

2 credits

Basic Skills in Hand Surgery, RCS, London: June & November

1 credit

Advanced Skills in Hand Surgery, RCS, London: November

2 credits

Microsurgery courses (various)

2 credits

Basic Practical Hand Course, Dundee

2 credits

Other courses run by BSSH members which may be of interest

Wrightington Hospital programme (various day courses)

1 credit

Derby Hand Club meeting

1 credit

Wrist course, Leeds

1 credit

Derby Wrist Course, November

1 credit

Advanced Course in Hand Surgery, Derby: May

2 credits

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APPENDIX 3
Details of course units

Title	1. Basic Sciences pertinent to the upper limb / Principles of Rehabilitation
Course Unit Leader	Mr. D. Evans
Credit Rating	15 credits
Aims	<p>To provide working knowledge of relevant basic sciences pertinent to the practice of hand surgery</p> <p>Acquire sufficient understanding of principles and practice of physiotherapy, occupational therapy and splintage on connection with hand and upper limb surgery, to allow appropriate use of those services for patients, and good liaison with therapists.</p>
Intended Learning Outcomes	<p>Ability to demonstrate working knowledge of :</p> <ul style="list-style-type: none"> • anatomical structures and relationships including interpretation of MRI/CT scan • embryology of upper limb and derivation of common anomalies and variations <p>musculoskeletal tissue repair and regeneration</p> <p>To be fully acquainted with the rehabilitation needs of patients undergoing hand and upper limb surgery. To understand the modalities of treatment use by physiotherapists in this specialty, and how to make appropriate referrals. To recognize the need for splintage and be able to liaise appropriately with the occupational therapists.</p> <p>To understand the needs of patients in respect of return to work, both in terms of advising on the appropriateness of employment, and helping with preparation for return to work. To know how to advise patients appropriately on driving safely.</p> <p>To understand the place of prosthetic limb replacement in limb deficiency or loss, and current technical possibilities, including osseointegration.</p> <p>To understand the implications of the Wolfe report on medicolegal reporting, and the principles underlying medicolegal work.</p> <p>To be familiar with the ethical requirements of confidentiality, consent and research.</p>
Unit Outline	<p><i>Embryology- principles of development and genesis of congenital difference</i></p> <p><i>Anatomy</i></p> <p><i>all aspects of anatomy of the upper limb excluding detailed anatomy of elbow and shoulder joints but including brachial plexus and thoracic outlet</i></p> <p><i>Physiology – pattern of blood supply to skin, fascia, muscle, bone, tendon healing,</i></p> <p><i>Pathology</i></p> <p><i>Repair and regeneration of skin, nerve, tendon, bone</i></p> <p><i>Musculoskeletal tumors</i></p> <p><i>Modalities of assessment, modalities of therapy for the injured and operated hand, rehabilitation of</i></p>

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	<p><i>flexor and extensor tendon injuries, complex injuries, principles of splinting, work assessment, return to driving</i></p> <p><i>Prosthetics</i></p> <p><i>Preparation of personal injury and occupational reports</i></p> <p><i>Ethical (hand transplantation)</i></p>
Teaching and Learning Methods	<p>Private study</p> <p>Tutorials with departmental tutor</p> <p>Instructional Courses in Hand Surgery (aspects of basic science covered throughout the lecture series) Courses 2 and Course 6 in particular for rehabilitation</p> <p>Windsor Hand Anatomy Course – cadaveric prosection</p> <p>Schedule attendance at Therapy Clinics and with departmental therapists</p>
Content	<p><i>Embryology</i>- principles of development and genesis of congenital difference</p> <p><i>Anatomy</i> - all aspects of anatomy of the upper limb excluding detailed anatomy of elbow and shoulder joints but including brachial plexus and thoracic outlet</p> <p><i>Physiology</i> – pattern of blood supply to skin, fascia, muscle, bone, tendon healing,</p> <p><i>Pathology</i> - Repair and regeneration of skin, nerve, tendon, bone. Pathology of common benign and malignant tumours.</p> <p>Indications for physiotherapy Methods used in physical therapy Indications for splintage Types of splintage and methods of construction Advise to patients on return to work Occupational reporting Preparation of medicolegal reports Medical negligence reporting Prosthetic fingers and limbs Return to driving Ethics of confidentiality and research</p>
Assessment methods with percentage breakdown.	<p>Work place assessment</p> <ul style="list-style-type: none"> • Knowledge based assessment (KBA) • Case based discussion (CbD) <p>Prepare and give a teaching lecture on rehabilitation topic to the department [Hand Diploma examination]</p>
Reading List	See attached

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Reading List / Resource Materials

Basic Sciences

Embryology

The Growing Hand Ed. Gupta / Kay & Scheker
Section 2: Birth, Growth & Development

Anatomy

Gray's Anatomy 38th Edition

Last's Anatomy

Netter's Atlas of Anatomy

Grant's Atlas of Anatomy

Acland R. DVD of Anatomy of the upper limb

McGrouther DVD A The Virtual Hand

Zancolli E. Structural and Dynamic Bases of Hand Surgery. 2nd Ed, Lippincott, 1979

Physiology

Ganong – Medical physiology

(Chapters on circulatory physiology, blood clotting, physiology of peripheral nerve)

Pathology

Bone healing. Chapters 1-3. AO principles of fracture management. (2001) Ruedi TP, Murphy WM, Colton CL, Fernandez Dell'Orca A, Holz U, Kellam JF & Oschner PE. Thieme, Stuttgart.

Tendon healing. 'Flexor Tendon Biology. Boyer MI. Hand Clinics 2005; 21(2):159-66.'

Nerve Chapters 1-5 in Surgical Disorders of the Peripheral Nerves.(1998) Birch R, Bonney G & Wynn Parry CB. Churchill Livingstone, Edinburgh.

Rehabilitation

Wynn Parry C. Rehabilitation of the Hand. Butterworths.. 4th Ed. 1981.

Chater R & Davies J. Combining passive movements to treat wrist joint dysfunction. British Journal of Hand Therapy 2001; 6: 21.

Jones L. Scar management in hand therapy – is our practice evidence-based? British Journal of Hand Therapy 2005; 10: 40.

Glasse N. A study of the effect of night extension splintage on post-fasciectomy patients. British Journal of Hand Therapy 2001; 6: 89.

Ed Kithen S. Evidence-based practice. Churchill Livingstone, 11th Ed, 2002. Interferential current for pain control (p287).

Prosser R and Conolly WB. Rehabilitation of the Hand and Upper Limb. Butterworth Heinemann, 2003

Tubiana R, Thomine J-M, Mackin E. Examination of the Hand and Wrist. Dunitz. 2nd Ed. 1996

Lister (ed Smith). Diagnosis and Indications in the Hand. 3rd Ed.

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Title	2. Skin and Soft Tissues / Dupuytren's Disease
Course unit Leader	Miss V.C. Lees
Credit Rating	15 credits
Aims	To understand blood supply of skin and soft tissues, wound healing, reconstruction of soft tissue deficit Acquire detailed understanding of all aspects of Dupuytren's disease including knowledge of relevant literature.
Intended Learning Outcomes	<p>Ability to demonstrate working knowledge of :</p> <ul style="list-style-type: none"> • Pathophysiology of wound healing in soft tissues including burns injury • Demonstrate clear understanding of management of soft tissue injury / deficiency including appropriate use of wound dressings • Understand the reconstructive 'ladder' to include use of split and full thickness grafts including local, regional, distant and free flaps • Demonstrate ability to manage soft tissue/bony infections <p>Develop familiarity with basic sciences of pathophysiology of Dupuytren's disease including relevant literature Demonstrate ability to manage Dupuytren's disease</p>
Unit Outline	<p><i>Principles of reconstruction / reconstructive 'ladder'</i> <i>Provision of skin and composite tissue cover</i> <i>Fingertip / nail</i> <i>Finger dorsal and palmar surface</i> <i>Hand dorsal and palmar surface</i> <i>Forearm, elbow, upper arm</i> <i>Soft tissue and bony infections of the upper limb</i> <i>Complex and specific injuries to include principles of burns management</i></p> <p><i>Pathophysiology of Dupuytren's contracture including basic science work, operations for Dupuytren's and evidence base for same</i></p>
Teaching and Learning Methods	<p>Private study</p> <p>Tutorials with departmental tutor</p> <p>Attendance at Plastic Surgery departmental Dressing/Therapy Clinics</p> <p>Basic and Advanced Hand Skills Courses Royal College of Surgeons of England</p> <p>Instructional Course in Hand Surgery – Course 1 Skin and soft tissue, Infection, Dupuytren's Disease</p> <p>Related Course (non BSSH) Canniesburn and Liverpool Flap Courses</p>

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<p>Content</p>	<p><i>Skin & soft tissues</i> Blood supply to skin and soft tissues- Wound healing Reconstructive ladder Skin grafts Local and distant flaps Microsurgical free tissue transfer Coverage of specific soft tissue deficits Management of complex wounds Infections <i>Dupuytren's contracture</i> Aetiology and risk factors Pathogenesis including details of scientific investigation undertaken to elucidate Dupuytren's disease Clinical assessment and patterns of disease Management options Conservative Fasciotomy Selective / limited / segmental aponeurectomy Dermofasciectomy Preoperative distraction techniques Management of contracted PIPJ</p>
<p>Assessment methods with percentage breakdown.</p>	<p>Work placed assessment</p> <ul style="list-style-type: none"> • Knowledge based assessment • Clinical evaluation exercise (CEX) • Direct observation of procedure (DOPS) (Skin / soft tissue) <p>Submit DVD of operation for Dupuytren's contracture [Diploma examination]</p>
<p>Reading List</p>	<p>See attached</p>

BSSH with the UNIVERSITY OF MANCHESTER
Postgraduate Diploma in Hand Surgery

Reading List / Resource Materials

SKIN AND SOFT TISSUES

Blood supply of skin / soft tissue

Taylor GI, Palmer JH. The vascular territories (angiosomes) of the body: experimental study and clinical applications. *British Journal of Plastic Surgery* 1987; 40(2) : 113-141.

Cormack GC & Lamberty BGH. The arterial anatomy of skin flaps. 1986. Churchill Livingstone, Edinburgh.

Grabb & Smith. Plastic Surgery. Various Chapters. Fifth Edition. Little Brown & Co., Boston.

Selected Readings in Plastic Surgery. Skin and soft tissues. 2005; 10 (1).

Tregaskiss AP, Goodwin AN, Bright LD, Ziegler CH & Acland RD. Three-dimensional CT angiography; a new technique for imaging microvascular anatomy. *Clinical Anatomy* 1997; 20(8): 116-123.

Wound healing

Argenta LC, Morykwas MJ. Vacuum assisted closure: A new method for wound control and treatment: Clinical experience. *Annals of Plastic Surgery* 1997; 38(6): 563-577.

Reconstructive ladder- principles

McGregor I. Basics of Plastic Surgery

Individual Local Flaps / Local flap cover of specific areas of the upper limb

Angrigiani C, Grilli D, Dominikow D & Zancolli EA. Posterior interosseous reverse forearm flap experience with 80 consecutive cases. *Plastic and Reconstructive Surgery* 1993; 92: 285.

Blondeel PN, Van Landuyt KH, Monstrey SJ, Hamdi M, Matton GE, Allen RJ, Dupin C, Feller AM, Koshima I, Kostakoglu N & Wei FC. The 'Gent' consensus on perforator flap terminology: preliminary definitions. *Plastic & Reconstructive Surgery* 2003; 112(5): 1378-83.

Davalbakhta AV, Niranjana NS. Fasciocutaneous flaps based on fascial feeding vessels for defects in the periolecranon area. *British Journal of Plastic Surgery* 1999; 52(1): 60-63.

Koshima I, Urushibara K, Fukuda N, Ohkochi M, Nagase T, Gonda K, Asato H & Yoshimura K. Digital artery perforator flaps for fingertip reconstruction. *Plastic & Reconstructive Surgery* 2006; 118(7): 1579-84.

Earley MJ & Milner RH. Dorsal metacarpal flaps. *British Journal of Plastic Surgery* 1987; 40: 333.

Foucher G & Braun J. A new island flap transfer from the dorsum of the index to the thumb. *Plastic and Reconstructive Surgery* 1979; 3: 344-349.

Foucher G, Smith D, Marin Braun F, Citron N. Homodigital neurovascular island flap for digital pulp loss. *Journal of Hand Surgery* 1989; 14B: 204-208.

Soutar DS & Tanner NSB. The radial forearm flap in the management of soft tissue injuries of the hand. *British Journal of Plastic Surgery* 1984; 37: 18.

Timmons MJ. The vascular basis of the radial forearm flap. *Plastic and Reconstructive Surgery* 1986; 77: 80.

Venkataswami R & Subramanian N. Oblique triangular flap: a new method of repair for oblique amputations of the fingertips and thumb. *Plastic and Reconstructive Surgery* 1980; 66: 296-300.

Weinzeig N, Chen L & Chen Z-W. The distally based radial forearm fasciocutaneous flap with preservation of the radial artery: an anatomic and clinical approach. *Plastic and Reconstructive Surgery* 1994; 94: 675.

Yi NW, Niranjana NS. Fascial flaps based on perforators for reconstruction of defects in the distal forearm. *British Journal of Plastic Surgery* 1999; 52(7): 534-40.

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Free tissue transfer in the upper limb

Brown DM, Upton J & Khouri RK. Free flap coverage of the hand. *Clinics in Plastic Surgery* 1997; 24: 57-62.

Chao JJ, Castello, English JM & Tittle BJ. *Micorsurgery Free Tissue Transfer and Replantation. Selected Readings in Plastic Surgery* 2000; 9(11).

Lin SH, Chuang DC, Hattori Y, Chen HC. Traumatic major muscle loss in the upper extremity: reconstruction using functioning free muscle transplantation. *Journal Reconstructive Microsurgery* 2004; 20(3): 227-35.

Serafin D. *Atlas of microsurgical composite tissue transplantation*. 1996 WB Saunders Company, Philadelphia

Complex injuries

Godina M. Early microsurgical reconstruction of complex trauma for the extremities. *Plastic and Reconstructive Surgery* 1986; 78 289-9.

Gupta A, Shatford RA, Wolff TW et al. Treatment of severely injured upper extremity. *Journal of Bone and Joint Surgery* 1999; 81A: 1628-1651.

Principles and Practice of Burns Management. Ed. Settle JAD. 1996. Churchill Livingstone, New York.

Wood M. Composite free flaps to the Hand. In *Hand Clinics – Soft Tissue Management of Complex Upper Extremity Wounds* 1997; 13(2); 231-238.

Infections

Jebson PJJ & Louis DS. *Hand Infections*. *Hand Clinics* 1998.

Kanavel AB. *Infections of the Hand*. 1933. 6th Ed. Lea & Febiger, Philadelphia.

DUPUYTREN'S DISEASE

Overview

McGrouther DA Dupuytren's contracture. In *Green's Operative Hand Surgery* 4th Ed Volume 1 pp539-591. Churchill Livingstone

History

Dupuytren G. *Lecons orales de clinique chirurgicale faites a l'hopital-Dieu de Paris*. Bailliere Libraire Parais Londres. 1832: 1-24.

Elliot D. The early history of Dupuytren's contracture. *Hand Clinics* 1999; 15(1): 1-19.

Aetiology

Burge P. Genetics of Dupuytren's disease. *Hand Clinics* 1999; 25(1): 63-71.

Geoghegan JM, Forbes J, Clark DI, Smith C & Hubbard R. Dupuytren's disease risk factors. *Journal of Hand Surgery* 2004; 29B: 423-426.

Hueston JT. Dupuytren's contracture and occupation. *Journal of Hand Surgery* 1987;12A: 657-658.

McFarlane RM. Dupuytren's disease: Relation to work and injury. *Journal of Hand Surgery* 1991; 16A: 775-779.

Ross DC. Epidemiology of Dupuytren's disease. *Hand Clinics* 1999; 15(1) 53-62.

Basic Science

Gabbiani G & Majno G. Dupuytren's contracture : fibroblast contraction? An ultrastructural study. *American Journal of Pathology* 1972; 66: 131-146.

Gabbiani G. The myofibroblast in wound healing and fibrocontractive diseases (review). *Journal of Pathology* 2003; 200: 500-503.

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Harris AK, Stopak D & Wild P. Fibroblast traction as a mechanism for collagen morphogenesis. *Nature* 1981; 19: 290(5803): 249-251.

Herou Y. Matrix metalloproteinases in skin pathology (Review). *International Journal of Molecular Medicine* 2001; 7: 3-12.

McCann BBG, Logan A, Belcher H, Warn A & Warn RM. The presence of myofibroblasts in the dermis of patients with Dupuytren's contracture. A possible source for recurrence. *Journal of Hand Surgery* 1993; 18B: 656-661.

McFarlane RM. Pattern of the diseased fascia in the fingers in Dupuytren's contracture. *Plastic and Reconstructive Surgery* 1974;54 : 31.

Clinical assessment

Smith PJ & Ross DA. The central slip tenodesis test for early diagnosis of potential Boutonniere deformities. *Journal of Hand Surgery* 1994; B : 88-90.

Woodruff MJ & Waldram MA. A clinical grading system for Dupuytren's contracture. *Journal of Hand Surgery* 1998; 23B(3): 303-305.

Clinical management

Brotherston TM, Balakrishnan C, Milner RH & Brown HG. Long term follow up of dermofasciectomy in Dupuytren's contracture. *British Journal of Plastic Surgery* 1994; 47: 440-447.

Bruner JM. The zig-zag volar-digital incision for flexor tendon surgery. *Plastic and Reconstructive Surgery* 1967; 40: 571-574.

Colville J. Dupuytren's contracture. The role of fasciotomy. *Hand* 1983; 15 : 162.

Hall PN, Fitzgerald A, Sterne GD & Logan AM. Skin replacement in Dupuytren's disease. *Journal of Hand Surgery* 1997; 22B: 2: 193-197.

Hueston JT & Seyfer AE. Some medicolegal aspects of Dupuytren's contracture (Review). *Hand Clinics* 1991; 7(4): 617-632.

McCash CR. The open palm technique in Dupuytren's contracture. *British Journal of Plastic Surgery* 1963; : 271-80.

McFarlane RM, McGrouther DA. Complications and their management. In *Dupuytren's Disease* Eds McFarlane RM, McGrouther DA, Flint MH. 1990. Churchill Livingstone, Edinburgh.

Messina A & Messina J. The continuous elongation treatment by the TEC device for severe Dupuytren's contracture of the fingers. *Plastic and Reconstructive Surgery* 1993; 92: 84-90.

Moermans JP. Segmental aponeurectomy in Dupuytren's disease. *Journal of Hand Surgery* 1981; 16B: 243-254.

Rives K, Gelberman R, Smith B & Carney K. Severe contractures of the proximal interphalangeal joint in Dupuytren's disease. Results of a prospective trial of operative correction and dynamic extension splinting. *Journal of Hand Surgery* 1992; 17A: 1153-1159.

Skoog T. Dupuytren's contracture: pathogenesis and surgical treatment. *Surgical Clinics of North America* 1967; 47:433-444.

Skoog T. The transverse elements of the palmar aponeurosis in Dupuytren's contracture. *Scandinavian Journal of Plastic Surgery* 1967;1 : 51.

Smith P & Breed C. Central slip attenuation in Dupuytren's contracture: A cause of persistent flexion of the proximal interphalangeal joint. *Journal of Hand Surgery* 1994; 19A: 840-843.

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Postgraduate Diploma in Hand Surgery

Tonkin MA, Burke FD & Varian JPW. Dupuytren's contracture: A Comparative study of fasciectomy & dermofasciectomy in one hundred patients. *Journal of Hand Surgery* 1984; 9B: 156-162.

Watson HK, Light TR & Johnson TR. Checkrein resection for flexion contracture of the middle joint. *Journal of Hand Surgery* 1979; 4A: 67-71.

Weinzweig MJ & Waldram MA. Severe contractures of the proximal interphalangeal joint in Dupuytren's disease: Combined fasciectomy with capsule-ligamentous release versus fasciectomy alone. *Plastic and Reconstructive Surgery* 1996; 97(3): 560-567.

BSSH video library

Various

BSSH with the UNIVERSITY OF MANCHESTER
Postgraduate Diploma in Hand Surgery

Title	3. Fractures and Joint Injuries of the Hand and Wrist including Wrist Instability
Course unit Leader	Mr. M Waldram
Credit Rating	15 credits
Aims	Acquire detailed understanding of all aspects of management of hand fractures, joint injuries including knowledge of relevant literature.
Intended Learning Outcomes	<p>Develop familiarity with basic sciences of pathophysiology of fracture healing, non-union and malunion including relevant literature</p> <p>Demonstrate ability to manage hand fractures and joint injuries.</p> <p>Acquire working knowledge of normal and abnormal kinetics and kinematics of wrist.</p> <p>Be able to examine and clinically assess the unstable wrist.</p> <p>Be familiar with appropriate investigations for instability including wrist arthroscopy</p> <p>Understand the treatment options including surgical reconstruction for the unstable wrist</p>
Unit Outline	<p><i>Pathophysiology of fracture healing including non-union, malunion</i></p> <p><i>Principles and details of management of fractures and dislocations of bones and joints of fingers, thumb and carpus (+/- distal radius, distal radioulnar joint)</i></p> <p><i>Wrist anatomy and biomechanics</i></p> <p><i>Pathophysiology of wrist instability /recognised patterns of instability</i></p> <p><i>Investigation including wrist arthroscopy</i></p> <p><i>Indications and interventions for wrist instability</i></p>
Teaching and Learning Methods	<p>Private study</p> <p>Tutorials with supervising consultant</p> <p>BSSH Instructional Courses in Hand Surgery – Course 4 Fractures, Joint injuries Course 6 Wrist</p> <p>Hand Fracture Management Courses University of Leicester</p> <p>AO Hand Fracture Courses</p> <p>Advanced Hand Skills Course</p>
Content	<p>Pathophysiology of fracture healing and bone grafting.</p> <p>Principles and details of management of fractures and dislocations of bones and joints of fingers, thumb and carpus.</p> <p>Fracture patterns and decision making in fracture management.</p> <p>Principles of non-operative management of fractures</p> <p>Principles of wiring, plates and screws, external fixation and traction</p> <p>Diaphyseal metacarpal fractures</p> <p>Carpometacarpal joint injuries</p> <p>Soft tissue injuries of the thumb MP joint and CMCJ instability</p>

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	<p>Complex dislocations of MCP and PIP Joints Diaphyseal and metaphyseal phalangeal fractures Fracture/Dislocations and die-punch fractures Condylar and avulsion fractures Non-union, mal-union, infection Bone loss and complex injuries Fractures in the child's hand and wrist</p> <p>Distal radius fractures; metaphyseal and articular. Malunion of the distal radius; osteotomy. TFCC injuries; DRUJ injuries. DRUJ procedures. Scaphoid fractures; non-union; salvage. Carpal instability - acute and chronic. Essex-Lopresti injuries; DRUJ instability.</p>
<p>Assessment methods with percentage breakdown.</p>	<p>Work place assessment</p> <ul style="list-style-type: none"> • Knowledge based assessment • Clinical evaluation exercise (CEX) • Direct observation of procedure (DOPS) • Case-based discussion (CbD) <p>Submit algorithm of management of a carpal instability or fracture problem [Hand Diploma examination]</p>
<p>Reading List</p>	<p>See attached</p>

BSSH with the UNIVERSITY OF MANCHESTER
Postgraduate Diploma in Hand Surgery

Reading List / Resource Materials

FRACTURES OF THE HAND AND WRIST

Fractures of the Metacarpals and Phalanges

Peter J Stern
Green's Operative Hand Surgery
711-771
Churchill Livingstone

Dislocations and Ligament Injuries in the Digits

Stephen Z Glickel, O Alton Baron Richard G. Eaton
Green's Operative Hand Surgery
772 - 808
Churchill Livingstone

Fractures of the Carpal Bones

Peter C. Amadio, Julio Taleisnik
Green's Operative Hand Surgery
809 - 864
Churchill Livingstone

Carpal Instabilities and Dislocations

Marc Garcia-Elias
Green's Operative Hand Surgery
865 - 928
Churchill Livingstone

Fractures of the Distal Radius

Diego L. Fernandez, Andrew K. Palmer
Green's Operative Hand Surgery
929 - 985
Churchill Livingstone

The Distal Radioulnar Joint

William H. Bowers
Green's Operative Surgery
986 - 1032
Churchill Livingstone

Open Injuries of the Hand

Paul W. Brown
Greens Operative Hand Surrgerly
1607 - 1630
Churchill Livingstone

Combined Injuries

Ueli Buchler, Hill Hastings,II
Green's Operative Hand Surgery
1631 - 1650
Churchill Livingstone

The Interphalangeal Joints

Ed William H Bowers
Churchill Livingstone

Fractures of the Hand and Wrist

Nicholas Barton

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Churchill Livingstone

EXTERNAL FIXATION AND TRACTION
Robertson et al JBJS 1946; 28

Agee Clin Orth 1987; 11A

Hastings and Carroll 1988 Hand Clinics; 4:3

Suzuki et al J Hand Surg 1996, 21B

THUMB METACARPAL AND CMCJ INJURIES

Burton and Eaton
Common Hand Injuries in the Athlete
Orthop Clin 4:808-838

Foster and Hastings
Treatment of Bennett, Rolando and vertical intra-articular trapezial Fractures
Clin Orthop 214;121-129

Wagner
Methods of treatment of Bennett's fracture dislocation
Am J Surg
80:230-231

WRIST INSTABILITY

Overview

Garcia-Elias M. Carpal instabilities and dislocations. In Green DP, Hotchkiss RN, Pederson WC, eds: Green's Operative Hand Surgery, 4th ed. New York, Churchill Livingstone, 1999: 865-928.

Buchler U. Wrist instability. FESSH 1996. Martin Dunitz, London. (Covers all aspects)

Watson HK & Weinzweig J. The Wrist. 2001. Lipincott Williams & Wilkins, Philadelphia. (Chapters 1-4 on anatomy and biomechanics, 22 on distal radioulnar joint, 26-31 on carpal instability)

Aetiology

Mayfield, Johnson & Kilcoyne. Carpal dislocations; pathomechanics and progressive perilunar instability. Journal of Hand Surgery, 1980;5:226-241.

Basic Science

Anatomy and Biomechanics
Gray's Anatomy 38th edition. Churchill Livingstone, London.

Clinical

Adams BD. Anatomic reconstruction of the distal radioulnar ligaments for DRUJ instability. Techniques in hand and upper extremity surgery 2000;4:154-160.

Blatt G. Capsulodesis in reconstructive hand surgery. Hand Clinics 1987; 3: 81-102.

Berger RA & Bishop AT. A fiber-splitting capsulotomy technique for dorsal exposure of the wrist. Techniques in hand and upper extremity surgery 1997: 1:2-10.

Eaton RG & Littler JW. Ligament reconstruction for the painful thumb carpometacarpal joint. Journal of Bone and Joint Surgery 1973; 55A: 1655-1666.

Fernandez DL. Technique and results of external fixation of complex carpal injuries. Hand Clinics 1993; 9: 625-637.

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Gelberman RH. The Wrist 2002. Lipincott Williams & Wilkins, Philadelphia. (Chapters 13-16 – operative techniques for carpal instability)

Kleinman WB. Management of chronic rotatory subluxation of the scaphoid by S-T-T arthrodesis. Hand Clinics 1987; 3 : 113-133.

Lichtman DM, Bruckner JD, Culp RW & Alexander CE. Palmar midcarpal instability: results of surgical reconstruction. Journal of Hand Surgery 1993; 18A: 307-315.

Minami A & Kaneda K. Repair and/or reconstruction of scapholunate interosseous ligament in lunate and perilunate dislocations. Journal of Hand Surgery 1993; 18A: 1099-1106.

Stanley J & Saffar P. Wrist arthroscopy 1994. Martin Dunitz, London. (Includes section on examination of wrist for instability)

Van den Abbeele KLS, Loh YC, Stanley JK & Train IA. Early results of a modified Brunelli procedure for scapholunate instability. Journal of Hand Surgery 1998; 23B: 258-261.

Weiss P, Sachar & Glowacki. Arthroscopic debridement alone for intercarpal ligament tears. Journal of Hand Surgery 1997; 22A: 344-349.

SCAPHOID FRACTURES

Diagnosis

Dias JJ, Thompson J, Barton NJ, Gregg PJ: Suspected scaphoid fractures the value of radiographs. J Bone Joint Surg [Br] 72:98-101, 1990.

Brydie A: Early MRI in the management of clinical scaphoid fracture. Br J Radiol 76:296-300, 2003.

Classification

Desai V, Davis TRC, Barton NJ: The prognostic value and reproducibility of the radiological features of the fractures of the scaphoid. J Hand Surg [Br] 24:586-590, 1999.

Treatment

Dias JJ, Wildin CJ, Bhowal B, Thompson JR: Should acute scaphoid fractures be fixed? J Bone Joint Surg [Am] 87:2160-8, 2005.

Singh HP, Forward D, Davis TRC, Dawson JS, Oni JA, Downing ND: Partial union of acute scaphoid fractures. J Hand Surg [Br] 30: 440-5, 2005.

Dias JJ: Definition of union after acute fracture and surgery for fracture non-union of the scaphoid. J Hand Surg [Br] 26: 321-5, 2001.

Prognosis

Lindström G, Nystrom A: Natural history of scaphoid non-union, with special reference to “asymptomatic” cases. J Hand Surg [Br] 17: 697-700, 1992.

Barton NJ: The late consequences of scaphoid fractures. J Bone Joint Surg [Br] 86: 626-30, 2004.

Further Reading

Herbert TJ, Fisher WE: Management of the fractured scaphoid using a new bone screw. J Bone Joint Surg [Br] 66:114-123, 1984.

Barton NJ: Twenty questions about scaphoid fractures. J Hand Surg [Br] 17:289-310,1992.

Russe O: Fracture of the carpal navicular: Diagnosis, non-operative treatment and operative treatment. J Bone Joint Surg [Am] 42:759-768, 1960.

BSSH video library

BSSH with the UNIVERSITY OF MANCHESTER
Postgraduate Diploma in Hand Surgery

Title	4. Osteoarthritic and inflammatory disorders of the Hand and Wrist.
Course unit Leader	Mr. G. Hooper
Credit Rating	15 credit points
Aims	Acquire detailed understanding of all aspects of management of osteoarthritic joints of the hand and wrist Acquire detailed understanding of the pathology, mechanisms of deformity and management of the inflammatory conditions affecting the hand
Intended Learning Outcomes	Develop familiarity with basic sciences of pathophysiology of osteoarthritis and rheumatoid arthritis Demonstrate ability to assess and manage arthritic small joints of the digits and wrist Be familiar with and able to undertake small joint arthrodesis and arthroplasty, limited and full wrist arthrodesis, Develop familiarity with the pathology, mechanisms producing deformity, the indications for surgical treatment in the inflammatory arthritides affecting the hand and the relevant literature Demonstrate ability to manage inflammatory arthritic disorders affecting the hand
Unit Outline	<i>Pathogenesis, clinical features and principles of management of osteoarthritic conditions of the hand and wrist</i> <i>Arthrodeses, excisional arthroplasty, prosthetic replacement arthroplasty</i> <i>Pathophysiology of rheumatoid and other inflammatory arthritides</i> <i>Clinical assessment and management principles in rheumatoid arthritis including planning and prioritisation – conservative and surgical treatment of specific conditions (e.g. wrist involvement, thumb disorders, MCPJ replacement, Swan neck and Boutonniere deformities)</i>

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Teaching and Learning Methods	<p>Private study</p> <p>Tutorials with supervising consultant</p> <p>BSSH Instructional Courses in Hand Surgery – Course 4 Fractures, Joint injuries, Arthritis Course 6 Disorders of the forearm and wrist</p> <p>Advanced Course in Hand Surgery, Royal College of Surgeons</p>
Contents	<p>Pathogenesis, clinical features and principles of management of osteoarthritic conditions of the hand and wrist.</p> <p>Conservative management techniques for osteoarthritic joints including splinting, exercises and aids to activities of daily living. Occupational therapy assessment of needs around activities of daily living.</p> <p>Wrist and hand examination.</p> <p>Wrist arthroscopy.</p> <p>How to perform small joint arthrodeses, excisional arthroplasty, prosthetic replacement arthroplasty of the fingers.</p> <p>Management of CMCJ arthritis including excisional arthroplasty.</p> <p>Management of radiocarpal arthritis including SLAC and SNAC wrist.</p> <p>Kienböck's disease.</p> <p>Management of arthritis of the DRUJ, ulna abutment and TFCC tears</p> <p>Wrist denervation</p> <p><i>Inflammatory arthritides</i></p> <p>Aetiology, pathology and mechanisms producing deformity</p> <p>Patterns of disease and clinical assessment</p> <p>Planning and prioritising treatment</p> <p>Management options</p> <p style="padding-left: 20px;">Conservative</p> <p style="padding-left: 20px;">Surgical treatment of:</p> <p>Wrist disorders</p> <p>Extensor tendons</p> <p>Flexor tendons</p> <p>Metacarpophalangeal joint</p> <p>Digital deformities (swan-neck and boutonniere)</p> <p>Thumb deformities</p>
Assessment methods with percentage breakdown.	<p>Work place assessment</p> <ul style="list-style-type: none"> • Knowledge based assessment • Direct observation of procedure (DOPS) • Clinical Evaluation Exercise (CEX) • Case-based discussion (CbD) <p>[Hand Diploma examination]</p>
Reading List	See attached

BSSH with the UNIVERSITY OF MANCHESTER
Postgraduate Diploma in Hand Surgery

Reading List / Resource Materials

OSTEOARTHRITIS

Wrist

Biomechanics and function

- Ryu JY, Cooney WP et al. Functional ranges of motion of the wrist joint. *J Hand Surg* 1991; 16: 409-419.
- Viegas SF et al. The effects of various load paths and different loads on the load transfer characteristics of the wrist. *J Hand Surg* 1989; 14A: 458-465.
- Werner FW et al. Force transmission through the distal ulna: effect of ulna variance, lunate fossa angulation, and radial and palmar tilt of the distal radius. *J Hand Surg* 1992; 17: 423-428.
- Shaaban H et al. The distal radioulnar joint as a load-bearing mechanism- a biomechanical study. *J Hand Surg* 2004; 29A: 85-95.
- Garcia-Elias M et al. Wrist kinematics after limited intercarpal arthrodesis. *J Hand Surg* 1989; 14A: 791-799.

Clinical disorders

- Campbell D. Carpal instability. *Current Orthopaedics* 1999; 13: 268-274
- IFSSH Anatomy and Biomechanics Committee. Definition of carpal instability. *J Hand Surg* 1999; 24A: 866-867.
- Friedman SL & Palmer AK. The ulna impaction syndrome. *Hand Clinics* 1991; 7: 295-310.
- Palmer AK. Triangular fibrocartilage complex lesions: a classification. *J Hand Surg* 1989; 14A: 594-606.
- Watson HK & Ballet FL. The SLAC wrist: scapholunate advanced collapse pattern of degenerative arthritis. *J Hand Surg* 1980; 5: 320-327.
- Weiss KE, Rodner CM. Osteoarthritis of the wrist. *J Hand Surg* 2007; 32A: 725-746.

Arthroscopy

- Abrams RA et al. Arthroscopic portal of the wrist: an anatomic study. *J Hand Surg* 1994; 19A: 940-944.
- Beredjikian PK et al. Complications of wrist arthroscopy. *J Hand Surg* 2004; 29A: 406-411
- Del Piñal F et al. Dry arthroscopy of the wrist- surgical technique. *J Hand Surg* 2007; 32A: 119-123.

Treatment

- Cohen MS & Kozin SH. Degenerative arthritis of the wrist: Proximal row carpectomy versus scaphoid excision and four-corner arthrodesis. *J Hand Surg* 2001; 26A: 94-104.
- Tomaino M et al. Scapholunate advanced collapse: proximal row carpectomy or limited wrist arthrodesis with scaphoid excision. *J Hand Surg* 1994; 19A: 134-142.
- Watson HK & Hampton RF. Limited wrist arthrodeses I. The triscaphoid joint. *J Hand Surg* 1995; 20: 813-817.
- Rogers WD, Watson HK. Radial styloid impingement after triscaphe arthrodesis. *J Hand Surg* 1989; 14: 297-301.
- Garcia-Elias M et al. Resection of the distal scaphoid for scaphotrapezotrapezoid osteoarthritis. *J Hand Surg* 1999; 24: 448-452.
- Minami A et al. The Sauvé-Kapandji procedure for osteoarthritis of the distal radioulnar joint. *J Hand Surg* 1995; 20A: 602-608.
- Kapandji A. The Sauvé-Kapandji procedure. *J Hand Surg* 1992; 17B: 133-136.
- Garcia-Elias M. The treatment of carpal instability. *J Bone Joint Surg* 1997; 79B: 684-690.
- Weiss AP, Hastings H. Wrist arthrodesis for traumatic conditions: a study of plate and local bone graft application. *J Hand Surg* 1995; 20: 50-56.
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Postgraduate Diploma in Hand Surgery

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Other sites of osteoarthritis

Belliappa PP, Burke FD. Excision of the pisiform in piso-triquetral osteoarthritis. *J Hand Surg* 1992; 17B: 133-136.

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Hooper G. Kienböck's disease. *J Hand Surg* 1992; 17B: 3-4.

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Gelberman RH et al. Ulnar variance in Kienböck's disease. *J Bone Joint Surg* 1975; 57A: 674-676.

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INFLAMMATORY ARTHRITIDES

Overview

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Extensor tendons

- Abernethy PJ, Dennyson WG. Decompression of the extensor tendons at the wrist in rheumatoid arthritis. *J Bone Joint Surg* 1979, 61B: 64-68.
- Thirupathi RG et al. Dorsal wrist synovectomy in rheumatoid arthritis- a long term study. *J Hand Surg* 1983, 8: 848-856.
- Vaughan-Jackson OJ. Rupture of extensor tendons by attrition at the inferior radio-ulnar joint. *J Bone Joint Surg* 1948, 30B: 528-530.

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- Beevers DJ, Seedholm BB. Metacarpophalangeal joint prostheses. *J Hand Surg* 1995, 20B: 125-36.
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- Chung KC et al. A prospective outcomes study of Swanson metacarpophalangeal joint arthroplasty for the rheumatoid hand. *J Hand Surg* 2004, 29A: 646-653.
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- Oster LH et al. Crossed intrinsic transfer. *J Hand Surg*, 1989, 14A: 963-971.
- Riordan DC, Fowler SB. Arthroplasty of the metacarpophalangeal joints: review of resection-type arthroplasty. *J Hand Surg* 1989, 14A: 368-371.
- Swanson AB. Silicone rubber implants for replacement of arthritic or destroyed joints in the hand. *Surg Clin N Am* 1968; 48: 1113-1127.
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Finger deformities

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Nalebuff EA. Opera-glass hand in rheumatoid arthritis. *J Hand Surg* 1976. 1: 210-220.
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Van der Meulen JC. The treatment of prolapse and collapse of the proximal interphalangeal joint. *The Hand* 1972. 4: 154-167.

Thumb deformities

- Nalebuff EA. The rheumatoid thumb. *Clin Rheum Dis* 1984, 10: 589-607.
Terrono A et al. Boutonniere rheumatoid thumb deformity. *J Hand Surg* 15A: 99-1003.

Miscellaneous

- Brown FE, Brown ML. Long-term results after tenosynovectomy to treat the rheumatoid hand. *J Hand Surg* 1988, 13A: 704-708.
Chang DJ, Paget SA. Neurologic complications of rheumatoid arthritis. *Rheum Dis Clin North Am* 1993, 19: 955-973.
Stern PJ et al. Tension band arthrodesis of small joints in the hand. *J Hand Surg* 1993, 18A: 194-197.
White SH et al. Posterior interosseous nerve palsy in rheumatoid arthritis. *J Bone Joint Surg* 1988, 70B: 468-471.
Wynn Parry CB, Stanley JK. Synovectomy of the hand. *Br J Rheumatology* 1993, 32:1089-1095.

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- Alderman AK et al. An analysis of women's and men's surgical priorities and willingness to have rheumatoid hand surgery. *J Hand Surg* 2006; 31A: 1447-1453.
O'Brien ET. Surgical principles and planning for the rheumatoid hand and wrist. *Clinics Plastic Surg* 1996, 23: 407-420.
Souter WA. Planning treatment of the rheumatoid hand. *The Hand* 1989, 11: 3-16.

Outcomes

- Alderman AK et al. Effectiveness of rheumatoid hand surgery - contrasting perceptions of hand surgeons and rheumatologists. *J Hand Surg* 2003, 28A: 3-11.
Swedish council on technology assessment in healthcare. Rheumatic diseases- surgical treatment. A systemic literature review by SBU- the Swedish council on technology assessment in healthcare. *The hand. Acta Orthop Scand* 2000, Suppl 294: 44-56.

Other arthritides

- Bleifeld CJ, Inglis AE. The hand in systemic lupus erythematosus. *J Bone Joint Surg* 1974, 56A: 1207-1215.
Granberry WM, Mangum GL. The hand in the child with juvenile arthritis. *J Hand Surg* 1980. 5: 105-113.
Jones NF et al. Surgery for scleroderma of the hand. *J Hand Surg* 1987, 12A: 391-400.
Lewis RA et al. The hand in mixed connective tissue disease. *J Hand Surg* 1978, 3A: 217-222.
Rose JH, Belsky MR. Psoriatic arthritis in the hand. *Hand Clin* 1989, 5: 137-144.
Mudgal CS. Management of tophaceous gout of the distal interphalangeal joint. *J Hand Surg* 2006; 31B: 101-103.
Saffar P. Chondrocalcinosis of the wrist. *J Hand Surg* 2004; 29B: 486-493.

BSSH DVDs -various

BSSH with the UNIVERSITY OF MANCHESTER
Postgraduate Diploma in Hand Surgery

Title	5. Tendon Disorders
Course unit Leader	Mr. R. Eckersley
Credit Rating	15 credits
Aims	Acquire detailed understanding of all aspects of flexor and extensor tendon injury and associated management. Knowledge of the basic science and evidence base for current practice in this area is required.
Intended Learning Outcomes	Detailed knowledge of science / laboratory studies on tendon healing and tendon repair. Be able to undertake flexor and extensor tendon repairs including multistrand repairs of flexor tendons Be familiar with techniques of flexor / extensor tendon repair and reconstruction including tendon grafting (Rehabilitation of tendon injury covered in Course unit 1)
Unit Outline	<i>Pathophysiology of tendon healing</i> <i>Flexor tendon injury and repair (knowledge of literature including history of techniques used)</i> <i>Extensor tendon injury and repair</i> <i>Tenolysis and tendon grafting</i> <i>Trigger fingers, De Quervain's tenosynovitis</i>
Teaching and Learning Methods	Private study Tutorials with supervising consultant Basic Hand Skills Course Instructional Courses in Hand Surgery – Course 3 Tendon Injury, Paralysis and Rehabilitation
Content	<i>Flexor tendon</i> Anatomy, physiology and mechanics Tendon injury and repair – biology Techniques of tendon repair Clinical studies of different repair and rehabilitation techniques incl. multistrand repairs <i>Extensor tendon</i> Anatomy Repair, rehabilitation and reconstruction
Assessment methods with percentage breakdown.	Work place assessment <ul style="list-style-type: none"> • Knowledge based assessment • Direct Observation of Procedure (DOPS) • Prepare review article on topic of choice (see options for submitted written work) [Hand Diploma examination]
Reading List	See attached

BSSH with the UNIVERSITY OF MANCHESTER
Postgraduate Diploma in Hand Surgery

Reading List / Resource Materials

History

Verdan CE. The decades of tendon surgery. In: American Academy of Orthopaedic Surgeons Symposium on Tendon Surgery. St Louis, Mosby, 1975.

Manske PR. History of flexor tendon repair. *Hand Clinics* 2005; 21 : 123 -127.

Overview

Mass DP & Phillips CS. Flexor Tendon Injuries. *Hand Clinics* 2005; 21. (Good source for overview of all aspects including history, biology and current techniques in flexor tendon repair)

Basic Sciences

Allan CH. Flexor tendons: Anatomy and surgical approaches. *Hand Clinics* 2005; 21 : 151-157.

Elliot D & McGrouther DA. The excursions of the long extensor tendons of the hand. *Journal of Hand Surgery* 1986; 11B : 77-80.

Gelberman RH, Manske P et al Flexor tendon repair. *Journal of Orthopaedic Research* 1986; 4: 119-128.

Guimberteau – Book on sliding layers

Trumble RT, Trumble TE, Hanel DP, Tencer AF & Kiser PK. The two, four and six-strand zone II flexor tendon repairs: A standardised in situ biomechanical comparison using the cadaver model. *Journal of Hand Surgery* 1998; 23A: ?pages

Clinical

Azari KKK & Meals RA. Flexor tenolysis. *Hand Clinics* 2005; 21 : 211-217.

Blair WT & Steyers CM. Extensor tendon injuries. *Orthopaedic Clinics of North America* 1992; 23 : 141-147.

Chang W et al. Avulsion injury of the long flexor tendons. *Plastic & Reconstructive Surgery* 1972; 50: 260-264.

Elliot D, Moeiman NS, Flemming AFS, Harris SB & Foster AJ. The rupture rate of acute flexor tendon repairs mobilized by the controlled active motion regime. *Journal of Hand Surgery* 1994; 19B : 607-612.

Elliot D. Primary flexor tendon repair – operative repair pulley management and rehabilitation. *Journal of Hand Surgery* 2002 ; 27B : 507-513.

Kleinert HJ & Kutz J et al. Primary repair of flexor tendons. *Orthopaedic Clinics of North America* 1973; 4 : 865-869.

Lister G. Pitfalls and complications of flexor tendon surgery. *Hand Clinics* 1985; 1 : 133-146.

Mehta V & Phillips CS. Flexor tendon pulley reconstruction. *Hand Clinics* 2005; 21 : 245-251.

Saldana MJ, Ho PK et al Flexor tendon repair and rehabilitation in zone II open sheath technique versus closed technique. *Journal of Hand Surgery* 1987; 12A: 1110-14.

Savage R & Risitano G. Flexor tendon repair using a ‘six strand’ method of repair and early active mobilization. *Journal of Hand Surgery* 1989; 14B : 396-399.

Schneider LH(Ed) Extensor tendon injuries. *Hand Clinics* 1995.

Sirota M & Elliot D. Early active mobilization of primary repairs of the flexor pollicis longus tendon with two Kessler two-strand core sutures and a strengthened circumferential suture. *Journal of Hand Surgery* 2004; 29B : 531.

Small JO, Brennan MD et al. Early active mobilisation following flexor tendon repair in zone 2. *Journal of Hand Surgery* 1989; 14B: 383-91.

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Postgraduate Diploma in Hand Surgery**

Stack HG. Mallet finger. *The Hand* 1969; 1 : 83-89.

Strickland J. Flexor tenolysis. *Hand Clinics* 1985; 1:121-132.

Strickland JW. Delayed treatment of flexor tendon injuries including grafting. *Hand Clinics* 2005; 21 : 219-243.

BSSH video library

Various

BSSH with the UNIVERSITY OF MANCHESTER
Postgraduate Diploma in Hand Surgery

Title	6. The Child's Hand / Tumors /Vascular Disorders
Course unit Leader	Mr. G. Miller
Credit Rating	15 credits
Aims	To acquire knowledge and understanding of the more common aspects of children's hand surgery. To appreciate the special needs of children undergoing hand interventions for both congenital and acquired conditions.
Intended Learning Outcomes	Embryology of the hand and the basis of malformations. Normal growth and development. The epiphyses. Classification of hand anomalies. Transverse absence Prosthetics Radial club hand The upper limb in arthrogryposis Thumb hypoplasia Ulnar dysplasia Syndactyly Trigger digits Polydactyly Madelung deformity Ring constriction syndrome Cerebral palsy (and spasticity) Specific injuries – Salter Harris epiphysial fractures, supracondylar fracture of humerus and Volkmann's ischaemic contracture Demonstrate understanding of principles of management of cutaneous, soft tissue and bony tumors. Have working knowledge of surgical oncology including biopsy techniques, excision margins, management of regional lymph nodes, formal amputations. Demonstrate understanding of vascular lesions including vascular malformations. Demonstrate understanding of management of acute and chronic vascular insufficiency syndromes including compartment syndrome / Volkmann's ischaemic contracture
Unit Outline	<i>Principles of management of children's hand</i> <i>Classification, reconstructive principles and timing of operations for congenital difference</i> <i>Knowledge of management including operative surgery of syndactyly, (duplicate thumb, hypoplastic thumb, radial club hand) and acquaintance with a variety of rarer conditions</i> <i>Specific injuries – Salter Harris epiphyseal fractures, supracondylar fracture of the humerus / Volkmann's ischaemic contracture</i> <i>Management including operative surgery of soft tissue and bony tumors including formal amputations, reconstructions. Includes principles of management of skin cancer and the regional lymph nodes</i>

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	<i>Management including operative surgery of vascular insufficiency syndromes, haemangiomas and vascular malformations. Vascular injury and its management including compartment syndrome.</i>
Teaching and Learning Methods	Private study. Tutorials with departmental tutor Instructional Course in Hand Surgery –Course 5 The Child’s Hand Tumors Vascular Disorders
Content	The aetiology, classification, risk factors and surgical management of the above listed conditions
Assessment methods with percentage breakdown.	Work place assessment <ul style="list-style-type: none"> • Knowledge based assessment • Case based discussion (CbD) • Clinical Evaluation Exercise (CEX) [Hand Diploma examination]
Reading List	See attached

BSSH with the UNIVERSITY OF MANCHESTER
Postgraduate Diploma in Hand Surgery

Reading List / Resource Materials

The Child's Hand

The Growing Hand – Diagnosis and management of the upper extremity in children. Eds. Gupta A, Kay SPJ & Scheker LR. 2000. Mosby, London.

Relevant sections on Congenital Disorders, part VI of Green's Operative Hand Surgery 5th Edition.

Congenital malformations of the hand and forearm. Buck-Gramko D. Churchill Livingstone, London.

Care of congenital hand anomalies. Flatt AE. Second ed., 1994. Quality Medical Publishing Inc., St. Louis, Missouri.

Netscher DT, Scheker LR. Timing and decision-making in the treatment of congenital upper extremity deformities. *Clin Plast Surg.* Jan 1990;17(1):113-31.

Tumors

Anderson RG. Skin Tumors II: Melanoma. Selected Readings in Plastic Surgery. 2004; 10 (3).

Bednar MS et al. Osteoid osteoma of the upper extremity. *Journal of Hand Surgery* 1993; 18A:1019-1028.

Bogumill G & Fleegler EJ 1993 Tumors of the hand and upper limb. Churchill Livingstone, Edinburgh.

Murray M, Athanasian EA & Jebson PLJ. Tumours of the Hand and Upper Extremity: Principles of Diagnosis and Management I and II. *Hand Clinics* 2004; 20 (2&3).

Newton Bishop JA, Corrie PG et al. UK guidelines for the management of cutaneous melanoma *British Journal of Plastic Surgery* 2002; 55: 46-54.

Sood R & Fleegler EJ. Ch 13 Surgical aspects of soft tissue tumors pp 873-888 In *The Growing Hand. Diagnosis and management of the upper extremity in children* Eds Gupta A, Kay SPJ & Scheker LR. Harcourt Publishers Ltd 2000.

Telfer NR, Colver GB & Bowers PW. Guidelines for the management of basal cell carcinoma. *British Journal of Dermatology* 1999; 141: 415-423.

Zbar RIS. Skin Tumors 1: Basal cell and squamous cell carcinoma. Selected Readings in Plastic Surgery. 2004; 10(3).

Chung Kevin C. Skin Tumours. *Green's Operative Hand Surgery* 5th Edition: 2191-2209.

Athanasian E.A. Bone and Soft Tissue Tumours. *Green's Operative Hand Surgery* 5th Edition: 2211-2263.

Vascular Disorders

Koman L.A., Ruch D.S., Paterson Smith B., and Smith T. Vascular Disorders. *Green's Operative Hand Surgery* 5th Edition: 2265-2313.

Mulliken JB, Young AE. Vascular birthmarks, Hemangiomas and Malformations. WB Saunders Company ISBN 0-8-7216-6601-9

Upton J. In: *The Growing Hand. Diagnosis and management of the upper extremity in children* Ch 89 The recognition and treatment of vascular tumors and malformations in children pp 831-857. Eds. Gupta A, Kay SPJ & Scheker LR. Harcourt Publishers Ltd 2000.

Merritt WH. Comprehensive management of Raynaud's syndrome. *Clin.Plast.Surg.* 1997;24:133-59.

Dethmers RS, Houpt P. Surgical management of hypothenar and thenar hammer syndromes: a retrospective study of 31 instances in 28 patients. *J.Hand Surg.[Br.]* 2005;30:419-23.

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Postgraduate Diploma in Hand Surgery

Friden J. Vibration damage to the hand: clinical presentation, prognosis and length and severity of vibration required. *J Hand Surg.[Br]* 2001;**26**:471-4.

Compartment syndrome

Gulgonen. Compartment Syndrome. Green's Operative Hand Surgery 5th Edition: 1985-2006.

Del Pinal F, Herrero F, Jado E, Gacia-Bernal FJ, Cerezal L. Acute hand compartment syndrome. American Journal of Emergency Medicine 2003; 21(2): 143-5.

Ouellette EA, Kelly R. Compartment syndromes of the hand. *J Bone Joint Surg.Am.* 1996;**78**:1515-22.

BSSH with the UNIVERSITY OF MANCHESTER
Postgraduate Diploma in Hand Surgery

Title	7. Nerve Disorders
Course unit Leader	Miss L. Feldberg
Credit Rating	15 credits
Aims	To acquire knowledge and understanding of peripheral nerve biology and nerve injury, repair and reconstruction. To understand and be able to plan reanimation of the paralysed upper limb including tendon transfers.
Intended Learning Outcomes	<p>Understand the physiology of peripheral nerve and the pathophysiology of nerve injury and repair/regeneration.</p> <p>Be able to interpret neurophysiological investigation including the EMG</p> <p>Be able to assess brachial plexus injury and understand principles of management.</p> <p>Understand how to prevent and manage common iatrogenic nerve injuries.</p> <p>Be able to undertake nerve repair including nerve grafting.</p> <p>Have a working knowledge of the operations used for reanimation of the upper limb including muscle and tendon transfers</p> <p>Understand the principles of management of cerebral palsy and tetraplegia</p> <p>Be familiar with nerve compression syndromes including detailed knowledge of carpal tunnel syndrome</p> <p>Be able to select appropriate regional anaesthetic techniques and to be familiar with analgesic management</p>
Unit Outline	<p><i>Classification and assessment of nerve injury</i></p> <p><i>Nerve repair including grafting</i></p> <p><i>Brachial plexus injury – assessment, priorities in surgical planning, principles of alternatives for reconstruction</i></p> <p><i>Tendon transfers for nerve palsy incl. principles of management of spastic conditions such as cerebral palsy and tetraplegia</i></p> <p><i>Management of iatrogenic nerve injury</i></p> <p><i>Carpal tunnel (knowledge of important papers in literature required)</i></p> <p><i>Other nerve compression syndromes (clinical features and basis of management)</i></p> <p><i>Neurophysiological investigation (EMG)</i></p>
Teaching and Learning Methods	<p>Private study</p> <p>Tutorials with departmental tutor</p> <p>Basic and Advanced Hand Skills Course Royal College of Surgeons</p> <p>Instructional Courses in Hand Surgery – Course 2 Nerve Injury & Compression, Pain, Anaesthesia - Course 3 Tendon Injury, Paralysis & Rehabilitation</p>

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Content	<p>Basic Sciences pertinent to nerve injury and healing How to perform nerve repair including grafting How to assess brachial plexus injury including priorities in surgical planning, alternatives for reconstruction Principles of tendon transfers for nerve palsy incl. principles of management of spastic conditions such as cerebral palsy and tetraplegia Prevention and management of iatrogenic nerve injury Detailed knowledge of management of carpal tunnel (knowledge of important papers in literature required). Know the clinical features and basis of management of other nerve compression syndromes Interpretation of neurophysiological investigation (EMG) Regional Anaesthesia, Analgesia and CRPS/pain syndromes Basic principles of brachial plexus injury and tetraplegia</p>
Assessment methods with percentage breakdown.	<p>Work place assessment</p> <ul style="list-style-type: none"> • Knowledge based assessment • Case- based assessment (CbD) • Clinical evaluation exercise (CEX) <p>Prepare a critique of papers presented at a scientific conference and present to department</p> <p>[Hand Diploma examination]</p>
Reading List	See attached

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Postgraduate Diploma in Hand Surgery

Reading List / Resource Materials

Specialist texts for reference and overview

Bonnard C & Sloof ACJ. Brachial plexus lesions (drawings of explorations and reconstructions) 1999. By Narakas A. Springer-Verlag, Berlin

Gilbert A. Brachial plexus injuries. 2001. Martin Dunitz.

Brand PW & Hollister AM. Clinical mechanics of the hand. 3rd Ed. 1999. Mosby, Inc., St. Louis, Missouri.

Birch R, Bonney G & Wynn Parry CB. Surgical Disorders of the Peripheral Nerves. 1998. Churchill Livingstone, Edinburgh.

Green's Operative Hand Surgery for all aspects esp. nerve palsy, tendon transfers, EMG.

Basic Sciences

Hart A, Brannstrom T, Wiberg M & Terenghi G. Primary sensory neurons and satellite cells after peripheral axotomy in the adult rat. Timecourse of cell death and elimination. Experimental Brain Research 2002; 142: 308-318.

Lundborg G, Dahlin L, Danileson N, Zhao Q. Topism, tropism and specificity in nerve regeneration. Journal of Reconstructive Microsurgery 1994; 10 : 345-354.

Lundborg G. Brain plasticity and hand surgery: An overview. Journal of Hand Surgery 2000; 25B : 242-252.

Terzis JK & Smith KL. The peripheral nerve: structure, function and reconstruction. 1990. Raven Press, New York.

Classifications

MRC classification motor power and sensory function

Sunderland S. Nerves and nerve injuries. 1978. Churchill Livingstone, London.

Clinical

Agee JM, McCarroll SR, Tortosa RD et al. Endoscopic release for the carpal tunnel: A randomised prospective multicentre study. Journal of Hand Surgery 1992; 17A : 987-995.

Atasoy E. Thoracic outlet compression syndrome. Orthopaedic Clinics of North America 1996; 27 : 265-303.

Carlson GM, George SA & Bueno RA. Treatment of the hand and wrist in cerebral palsy. Journal of Hand Surgery 2006; 31A: 483-90.

Chang C W, Wang Y C, Chang K F, A practical electrophysiological guide for non surgical and surgical treatment of carpal tunnel syndrome. Journal of Hand Surgery 2008; 33E : 32 -7.

Gelberman RH, Rydevik BL et al. Carpal tunnel syndrome: A scientific basis for clinical care. Orthopaedic Clinics of North America 1988; 19 : 115-124.

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APPENDIX 4



**British Society for Surgery of the Hand
KNOWLEDGE-BASED ASSESSMENT (KBA)**

Consultant Supervisor Full Name:	
Participating Surgeon Full Name:	
GMC Number:	
Date of Assessment:	
Training Post:	

Module:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

	<i>Below Average</i>	<i>Average</i>	<i>Above Average</i>	<i>N/A*</i>
1. Understanding of principles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Familiarity with relevant literature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Knowledge of applied science	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Understanding of pathology	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Familiarity with patterns of disease or injury	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Use of appropriate diagnostic methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Knowledge of appropriate treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Overall grasp of subject	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*N/A – not assessed /not applicable

Suggestions for development

Agreed action

Trainee satisfaction with KBA **Low** 1 2 3 4 5 6 7 8 9 **High** 10

Trainer's Signature:	Trainee's Signature:
-----------------------------	-----------------------------



**British Society for Surgery of the Hand
CLINICAL EVALUATION EXERCISE (CEX)**

Consultant Supervisor Full Name:	
Participating Surgeon Full Name:	
GMC Number:	
Date of Assessment:	
Training Post:	

Module:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Topic:

	<i>Below Average</i>	<i>Average</i>	<i>Above Average</i>	<i>N/A*</i>
1. History Taking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Physical Examination Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Communication Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Knowledge of Condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Clinical Judgement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Management Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Other Comments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*N/A – not assessed /not applicable

Suggestions for development

Agreed action

	Low											High
Trainee satisfaction with CEX	1	2	3	4	5	6	7	8	9	10		

Trainer's Signature:	Trainee's Signature:
-----------------------------	-----------------------------



British Society for Surgery of the Hand

CASE-BASED DISCUSSION (CbD)

Consultant Supervisor Full Name:	
Participating Surgeon Full Name:	
GMC Number:	
Date of Assessment:	
Training Post:	

Module:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Topic:

	<i>Below Average</i>	<i>Average</i>	<i>Above Average</i>	<i>N/A*</i>
1. Medical Record Keeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Clinical Assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Investigation and Referrals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Treatment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Follow-up and Future Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Overall Clinical Judgement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Other Comments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*N/A – not assessed /not applicable

Suggestions for development

Agreed action

	Low										High
Trainee satisfaction with CbD	1	2	3	4	5	6	7	8	9	10	

Trainer's Signature:	Trainee's Signature:
-----------------------------	-----------------------------



British Society for Surgery of the Hand

DIRECT OBSERVATION OF PROCEDURAL SKILLS (DOPS)

Consultant Supervisor Full Name:	
Participating Surgeon Full Name:	
GMC Number:	
Date of Assessment:	
Training Post:	

Module:

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Operation:

	Below Average	Average	Above Average	N/A*
1. Understands Indications, Relevant Anatomy, Technique of Procedure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Pre-procedure preparation (Informed Consent, Marking Side, Anaesthesia, Tourniquet Management)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Technical Aspects (Aseptic Technique, Tissue Handling, Dissecting Skill)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Post-procedure Management (Analgesia, Splints, Specifying ongoing Care)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Communication Skills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Consideration of Patient/Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Overall Ability to Perform Procedure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*N/A – not assessed /not applicable

Suggestions for development

Agreed action

	Low									High
Trainee satisfaction with DOPS	1	2	3	4	5	6	7	8	9	10

Trainer's Signature:	Trainee's Signature:
-----------------------------	-----------------------------

APPENDIX 5

GUIDANCE ON PLAGIARISM AND OTHER FORMS OF ACADEMIC MALPRACTICE

Definition

Plagiarism is misrepresenting other people's work as your own. It can be regarded as 'academic theft.' The work in question could be written words but also includes ideas, arguments, diagrams, images or other data. The misrepresentation could be a specific overt claim that someone else's work is your own or, just as seriously, failing to acknowledge adequately the sources you have used. The other person's work could have come from a publication, the World Wide Web, another doctor's work etc.

In its most blatant form plagiarism involves copying large parts of someone else's work and claiming it as your own. It also includes extracting shorter phrases or sentences and linking them together again presenting them as your own.

Plagiarism amounts to academic misconduct – that is, it is a form of cheating. It is therefore treated seriously and is a probity issue impacting on your fitness to practice.

How to avoid plagiarism

Plagiarism is avoided by ensuring you always acknowledge the source of any information you have included in your written work or presentations. Make it clear which parts of your work have come from someone else's contribution.

Specifically, you should avoid:

- Copying word-for-word or closely paraphrasing directly from a text
- Taking data or clinical images from someone else and claiming it as your own
- Copy from another person's notes
- Changing a few words around and passing off something as your own work when it is not

Do try to:

- Write notes in your own words about any articles, books or other material you obtain
- When you need to copy a passage from a given source mark it in highlighter so you can clearly identify it subsequently
- Write the reference next to any quotation immediately so that you are never tempted to save time later by using it without acknowledgement
- If quoting anything longer than a phrase from someone else's work you should present it as a quotation, using inverted commas and refer it to the sources in full in a footnote or bibliography
- Avoid lengthy quotations altogether
- If in doubt as to whether or not something you are proposing might lead to an accusation of plagiarism discuss it first with your clinical supervisor

Ethical Guidelines

Detailed advice on appropriate professional conduct is laid down in 'Good medical practice' of the General Medical Council www.gmc-uk.com

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APPENDIX 6

Equal Opportunities Policy

The BSSH is committed to treating all its employees, job applicants and students equally. The BSSH will take all reasonable steps to employ, promote and train employees, admit, educate and assess students without regard to gender, colour, ethnic or national origin, age, socio-economic, background, disability, religious or political beliefs, family circumstances, sexual orientation or any other relevant matter.

The BSSH will take all reasonable steps to provide a working and learning environment in which all people are treated with respect and dignity and without harassment.

Employees

The BSSH recruitment process for posts at all levels will be conducted so as to select the most suitable person result for the job in terms of experience, ability and qualifications.

All terms of employment, benefits, facilities and service will reviewed regularly in order to ensure there is no unlawful discrimination. The BSSH will ensure that male and female employees receive equal pay for like work, work rated as equivalent or work of equal value. In order to achieve this, it operated a pay system that is transparent, free from bias and based on objective criteria.

It is against BSSH policy for any employee to harass another employee. Harassment means engaging in conduct which violates or is intended to violate another employee's dignity at work or creates an intimidating, hostile, degrading, humiliating or offensive work environment for the other person. Harassment specifically includes bullying, sexual harassment and racial harassment. All such allegations will be dealt with seriously, confidentially and expeditiously. Any employee who is found to have discriminated against or harassed another employee will be subject to disciplinary action and, in cases amounting to gross misconduct, may be liable to summary dismissal.

The BSSH will regularly monitor the effects of selection decisions, personnel and pay practices and procedures in order to assess whether equal opportunity and dignity at work are being achieved.

Participating surgeons

The BSSH is committed to:

- Supporting a policy of widening opportunity in and access to education
- Communicating its equal opportunities policy widely to staff and students
- Creating a learning environment which is free from prejudice, discrimination or harassment
- Maintaining admissions procedures and selection criteria which provide for equality of opportunity for all applicants and ensuring that all learning, assessment and other academic processes take account of its equal opportunities policy
- Monitoring the effectiveness of its equal opportunities policy

APPENDIX 7 APPEALS AND COMPLAINTS

Complaints

We aim to provide high standard of service to our diploma participants at all times. However, if you wish to draw our attention to any issues you feel are below the expected standard, we will make every effort to resolve your complaint in a reasonable and flexible manner so that a fair and just outcome is achieved.

- **Informal complaint**

Wherever possible, we seek to resolve complaints informally. Therefore we encourage you first to discuss the matter informally with the member of staff concerned as soon as possible. If you feel it is more appropriate, you may discuss the problem with your Clinical Supervisor, Course unit Leader, Head of Student Support (University) or the Programme Director. It would be most helpful if you indicate at the outset the form of remedy you are seeking. Doing so will not prejudice the eventual outcome.

It is essential that you act straightaway if the particular issue you have is likely to adversely affect your studies in any way, for example if your learning materials have not arrived or there is a problem regarding attending study days or in having special arrangements for an assessment.

- **Formal complaint**

If the matter is not resolved informally, and you wish to make a formal complaint, please do so by putting the details in a letter addressed to the Programme Director at the BSSH.

Although some queries can be dealt with by telephone, it is best for you to put it in writing and send it by post, email or fax. This ensures that there is a record of your query and that it is expressed and recorded accurately. If you set it out as a numbered sequence of points, including any known dates or references it will help us understand the circumstances and events clearly. Please quote your student reference number and the name of the course unit you are currently studying.

We will send a reply within 10 working days of receiving your query, wither answering it fully or acknowledging receipt of it and indicating when a full answer will, or is likely to be given. The Programme Director will appoint a senior member of staff to investigate your complaint. We undertake to provide you with a response within 28 days of your written complaint. If you are dissatisfied with the written response you have the right to have the matter reviewed by the President of the BSSH.

Definitions

- An appeal is a request for a review of a decision on progression, assessment or award
- An appellant is a person who brings an appeal
- A complaint is a specific concern about course, course unit or programme provision or a related academic service
- A complainant is a person who brings a complaint

General principles

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Postgraduate Diploma in Hand Surgery

We aim to deal with all appeals and complaints promptly, fairly and consistently. Wherever possible we will deal with them informally and as closely as we can to the point where the particular issue arose.

Our appeals and complaints procedure is approved by the Academic Panel and is subject to regular review, taking into account current good practice. As far as possible, these procedures will be clear and accessible and will reflect the principles of natural justice (the right for you to be heard and for such procedures to be free from bias).

In circumstances where a hearing becomes necessary, in conjunction with your appeal or complaint, you will be entitled to attend that hearing and to be accompanied by a person of your choice if you wish.

Your privacy and confidentiality will be respected and assured wherever possible. You will not be disadvantaged or discriminated against as a result of making a genuine appeal or complaint.

You will be entitled to receive notification of the outcome of your appeal or complaint and to be informed about any further procedures open to you if you are dissatisfied with that outcome. The BSSH undertakes to meet reasonable and proportionate incidental expenses necessarily incurred if your appeal or complaint is successful.

Grounds for appeal

You have the right to make a formal appeal against your assessment result, decision or progression on the following grounds only:

1. where there is evidence of a material error in the conduct of the assessment or the Assessment's Board's procedures
2. Where there are exceptional extenuating circumstances

In respect of 2. you **must** notify the BSSH of any extenuating circumstances before your assessment takes place, unless for reasons outside your control, you were unable to do so. The procedure for notifying us is set out below.

The following specifically are **not** grounds for appeal:

- Challenges to the academic judgement of examiners as to the outcome of an assessment, decision on progression
- A claim that there have been exceptional mitigating circumstances where there then is no evidence produced in respect of the same

Appeals procedure

1. Informally question a decision

If you wish to question a decision you need to contact the Programme Director as soon as possible after receiving notification of that decision and, in any event within 28 days. Where possible and appropriate, we will deal with the matter informally, normally by referring it back to the body or individual who conveyed the original decision to you.

Although some queries can be dealt with by telephone, it is best for you to put it in writing and send it by post, email or fax. This ensures that there is a record of your query and that it is expressed and recorded accurately. If you set it out as a numbered sequence of points, including

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any known dates or references it will help us understand the circumstances and events clearly. Please quote your student reference number and the name of the course unit you are currently studying.

We will send a reply within 10 working days of receiving your query, either answering it fully or acknowledging receipt of it and indicating when a full answer will, or is likely to be, given.

If you are still dissatisfied with the outcome after this, and believe you have grounds, you may make a formal appeal.

2. Making a formal appeal

Where it is impossible or inappropriate to settle an appeal informally, you may wish to make a formal appeal. Formal appeal may also be necessary if you are dissatisfied with the result of informal appeal. You must give full details to the Programme Director in writing within 28 days of the publication of the exam results.

You should:

- Explain the grounds of your appeal, and
- Attach any information or correspondence that you consider to be relevant

The Programme Director will acknowledge receipt of your appeal and conduct a preliminary review of the circumstances surrounding the appeal. You may be asked to supply further information or documents. At this stage the Programme Director has the power to dismiss any application that is judged to be vexatious, frivolous or otherwise an abuse of process. If so you will be advised in writing at the earliest opportunity. No appeal will be struck out solely because you have made minor procedural errors in your appeal application.

The appeal which progresses will be referred by the Programme Director to the Appeal Panel which will conduct a review of the matter.

The Appeal Panel will be established by the Chairman of Examiners under the delegated authority of the Academic Panel. The composition of the Appeal Panel is as follows:

- Chairman of Examiners
- Programme Director (Hand Diploma lead)
- Chairman of Education & Training Committee BSSH
- Internal advisor to the University for the Hand Diploma

The onus is on you to prove that the relevant ground(s) for appeal have been made out. You have the right to attend the appeal hearing in person and to be accompanied by a person of your choice.

The Appeal Panel has the following powers:

- To uphold your appeal and nullify your original assessment results. You will then have the right to sit the exam as if for the first time and no fee will be charged.
- To uphold your appeal and refer the matter back to the Assessment Board who will have the final decision
- To decide that your Appeal is not upheld and the original decision stands

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The Programme Director can give you further advice and guidance about the process for making a formal appeal.

Final appeal to the University

In case of persisting disagreement the University Appeals process will investigate the conduct of the appeal to date to ensure that all due process has been followed. The decision itself will not be revisited unless there has been an aberration of process.

APPENDIX 8



British Society for Surgery of the Hand
Application Form for Registration

NOTE: This form is to be completed by both the participating surgeon and their consultant supervisor. The supervisor does not personally have to deliver every module but should liaise with colleagues and obtain their commitment to cover other sections as appropriate.

PARTICIPATING SURGEON SECTION

Name:	
Home Address:	
Home Telephone:	
Mobile:	
E-Mail:	
NTN	
GMC Number	
CCT Date (for Trainees)	

Intending to study (select one):

- Full-time (12 months from registration to completion)
- Part-time (18-24 months from registration to completion)

Details of Advanced Hand Surgery Training:

Details of the advanced hand surgery training experience that the participating surgeon will undertake should be entered here. A minimum of 6 months post FRCS(Orth/Plast) is required and this may be undertaken within the existing rotation or may take the form of one of the national advanced training posts (ATPs).

Rotation:	
Programme Director:	
Date of Commencement:	
Date of Completion:	
Signature of surgeon:	

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Postgraduate Diploma in Hand Surgery**

The consultant supervisor is asked to here indicate the person responsible for teaching and delivering the modules. Where others are involved their express agreement is required. It is anticipated that within a region orthopaedic and plastic surgery departments will work together to deliver the syllabus.

	Name of Consultant(s) who will deliver module
Module 1 Basic Sciences and Rehabilitation	
Module 2 Skin and Soft Tissues/Dupuytren's Contracture	
Module 3 Fractures and Joint Injuries, including Wrist Instability	
Module 4 Osteoarthritic and inflammatory disorders	
Module 5 Tendon Disorders	
Module 6 The Child's Hand/Tumours/Vascular Disorders	
Module 7 Nerve Disorders	

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Postgraduate Diploma in Hand Surgery

PROGRAMME DIRECTOR SECTION

The Programme Director needs to confirm that the rotation will accommodate and deliver the programme as outlined in the Programme Handbook. The Programme Director should further confirm that a minimum of 6 months attachment substantially within a hand surgery practice is currently allocated to or has been started by the applicant. In the case of applicants (including existing consultants) who have already completed their advanced hand surgery training the Programme Director should liaise with the supervising consultant surgeon as to how the tutorials and assessments can be delivered alongside the respective existing commitments.

Name:	
Signature:	
Date:	

EDUCATIONAL DIRECTOR SECTION

[To be completed by the BSSH Office]

The Educational Director of the Hand Diploma programme will review the application in conjunction with the members of the Education & Training Committee and will sign off the application when it is judged that the necessary criteria for entry have been fulfilled.

Name:	
Signature:	
Date:	

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FEE

Current fee for the course including examination is £1050. Please note: once your registration is accepted by the BSSH / University of Manchester the fee becomes non-refundable.

Cheque payable to 'British Society for Surgery of the Hand'

Or

Credit Card Details:

* Access/Visa/Mastercard/Eurocard/Debit/Maestro * (delete as applicable)

Card Number:	
Valid from:	
Expiry Date:	
Issue No: (Maestro only)	
Card Validation Code (CVC)	

Card Holder's Name:	
Billing Address: (as per credit card statement)	
Amount to be Debited:	
Signature:	
Date:	

BRITISH SOCIETY FOR SURGERY OF THE HAND
at the Royal College of Surgeons, 35-43 Lincoln's Inn Fields, London WC2A 3PE
Telephone: 020 7831 5162, Fax: 020 7831 4041
E-mail: secretariat@bssh.ac.uk, Website: www.bssh.ac.uk