

Components	Information
1. <b>Division/ Department</b>	Medicine/ Gastroenterology and Hepatology
2. <b>Title of Programme</b>	Fellowship Training Programme in Interventional Endoscopy EUS/ERCP
3. <b>Relevant Registrations</b>	<ul style="list-style-type: none"> <li>• Temporary Registration with Singapore Medical Council (SMC)</li> <li>• Training employment pass application with Ministry of Manpower, Singapore (MOM) (upon successful Temporary Registration with Singapore Medical Council)</li> </ul>
<p>4. Overview</p> <p>4.1 Background information</p>	<p>Singapore General Hospital is a 1600 bed tertiary hospital. EUS is performed by the department of Gastroenterology and Hepatology whilst ERCP is performed by both the department of Gastroenterology and Hepatology and the department of General Surgery. The average number of cases done for EUS is approximately 300 cases per year whilst the ERCP is around 700 cases per year.</p> <p>Other interventional endoscopy cases such as, stenting, dilation, EMR, ESD, advanced endoscopic imaging and small bowel enteroscopy number around 200 cases per year.</p> <p>During the one-year training programme, Clinical Fellowss participate in ten months of hands-on training in EUS, ERCP and interventional endoscopy. This would include performance of diagnostic and therapeutic ERCP, including common duct stone removal, stenting of benign and malignant strictures, lithotripsy, SpyGlass cholangioscopy, pancreatic stone removal, stricture and pseudocyst management. Diagnostic and therapeutic EUS which include evaluation of the pancreatobiliary system, staging of malignancies, FNA of solid and cystic lesions and EUS guided cyst drainage. Clinical Fellows will have hands on training for endoscopy stenting, dilation, EMR, ESD advanced endoscopic imaging and small bowel enteroscopy.</p> <p>Direct care of both in-patients and outpatients is included. Clinical Fellow will be expected to be involved in the pre procedure evaluation as well as post procedure management of the patients. During the hands-on training period, Clinical Fellow will be expected to produce at least 2 abstracts and 1 manuscript. The trainee will also be expected to present at journal clubs and meetings on topics relevant to EUS and ERCP.</p> <p>Two months will be allocated for general gastroenterology whereby the Clinical Fellow will function as a registrar of a GI team supporting a supervising consultant. During this period the priority will focus more on general GI work and supporting the general GI team.</p>
4.2 Goal/ aim(s)	Our primary goal is to teach Clinical Fellows who will further the field in advanced endoscopy and to provide Clinical Fellows with the foundation for research in the field of advanced endoscopy. At the end of one year of training, we anticipate that the Clinical Fellow would have some experience in the cognitive aspects and performance of EUS, ERCP and interventional endoscopy.

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4.3 Duration	12 Months
4.4 Hyperlinks/URL Sites	<a href="https://www.sgh.com.sg/Clinical-Departments-Centers/Gastroenterology-Hepatology/Pages/overview.aspx">https://www.sgh.com.sg/Clinical-Departments-Centers/Gastroenterology-Hepatology/Pages/overview.aspx</a>
<b>5. Target Audience</b>	Clinical Fellows who have completed their basic Gastroenterology fellowship and who are proficient in basic endoscopy
5.1 Pre-requisite /eligibility requirement(s)	<p>General requirements for Temporary Registration for training (required by SMC):</p> <ul style="list-style-type: none"> <li>• A basic medical degree from an accredited medical university or medical school</li> <li>• Passed the relevant national licensing examination in the country of conferment of basic degree, where applicable</li> <li>• Evidence of at least 12 months houseman-ship / internship with a certificate of satisfactory completion of houseman-ship or equivalent</li> <li>• Been registered as a medical practitioner in the country where he is currently practising</li> <li>• Been certified to be of good standing by the Medical Council or the relevant national authority</li> </ul> <p>Note: the doctor should be in active clinical practice for the 3 years preceding the application for medical registration.</p> <p>In addition to the above criteria, <b>Clinical Fellow</b> must:</p> <ol style="list-style-type: none"> <li>a) Have a minimum of 3 years of relevant working experience as a medical officer (or equivalent)</li> <li>b) Fulfil English Language requirements of SMC if the medium of instruction for the basic medical qualification is not in English</li> <li>c) Preferably have obtained a postgraduate diploma or degree in his country or overseas</li> <li>d) As a Clinical Fellow, the doctor will be allowed to be involved in patient care and make entries in patients' case note, communicate care plans to patients and fellow healthcare professionals, and perform procedures under <u>direct</u> supervision or Level 1 supervision</li> </ol> <p><b>Department's requirement, if any (only for Clinical Fellow in this subspecialty):</b></p> <ul style="list-style-type: none"> <li>• Post graduate qualification such as MRCP or its equivalent is required.</li> </ul>
<b>6. Learning Objectives</b>	<p>This fellowship would allow the Clinical Fellow to acquire:</p> <ul style="list-style-type: none"> <li>• Cognitive aspects and performance of EUS, ERCP and interventional endoscopy.</li> <li>• Basic skills in research in the area of advanced endoscopy</li> </ul>
<b>7. Course/Training Syllabus</b>	<ol style="list-style-type: none"> <li>1. To perform or assist in diagnostic EUS <ul style="list-style-type: none"> <li>• Basic imaging</li> <li>• Advanced imaging with contrast and elastography</li> <li>• Advanced needle imaging with needle confocal endomicroscopy</li> <li>• Tissue acquisition with FNA</li> <li>• Tissue acquisition with through the needle forceps</li> </ul> </li> <li>2. To perform or assist in therapeutic EUS <ul style="list-style-type: none"> <li>• Celiac neurolysis</li> <li>• Pseudocyst drainage</li> </ul> </li> </ol>

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	<ul style="list-style-type: none"> <li>• EUS biliary drainage</li> <li>• EUS Gallbladder drainage</li> <li>• EUS Gastro jejunostomy</li> </ul> <p>3. To perform or assist in ERCP with therapeutics</p> <ul style="list-style-type: none"> <li>• Stone removal</li> <li>• Dilation and stenting</li> <li>• Pancreatic endotherapy</li> <li>• Intraductal imaging with cholangioscopy</li> </ul> <p>4. Therapeutic endoscopy</p> <ul style="list-style-type: none"> <li>• Stenting</li> <li>• Dilation</li> <li>• EMR</li> <li>• ESD/POEM</li> </ul> <p>5. Advanced imaging</p> <p>6. Small bowel enteroscopy</p>												
<b>8. Training Method</b>	<p><b>Method of Supervision:</b> Direct observation and feedback. Clinical Fellow will be supervised by an assigned supervisor at all times.</p> <p><b>Hands-On Experience:</b> Clinical Fellows will perform or assist in the following procedures under supervision:</p> <ol style="list-style-type: none"> <li>1. Daily endoscopies supervised by advanced endoscopy Consultant/Senior Consultant</li> <li>2. Daily review of pre procedure and post procedure patients</li> <li>3. Weekly X-ray meetings and tumor board meetings</li> <li>4. Research work mentored by advanced endoscopy Consultant/Senior Consultant</li> </ol> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3" style="background-color: #cccccc;">TRAINING ACTIVITIES &amp; METHODOLOGY</th> </tr> <tr> <th style="width: 40%;">Name of activity</th> <th style="width: 30%;">Frequency / No. of sessions / Length of session</th> <th style="width: 30%;">Teaching methodology</th> </tr> </thead> <tbody> <tr> <td>Daily pre procedure assessment</td> <td>Daily 1 hour</td> <td>Discussion on indications for procedure</td> </tr> <tr> <td>Daily post procedure assessment</td> <td>Daily 1 hour</td> <td>Discussion on complications of procedure</td> </tr> </tbody> </table>	TRAINING ACTIVITIES & METHODOLOGY			Name of activity	Frequency / No. of sessions / Length of session	Teaching methodology	Daily pre procedure assessment	Daily 1 hour	Discussion on indications for procedure	Daily post procedure assessment	Daily 1 hour	Discussion on complications of procedure
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	Daily performance of advanced endoscopic procedures	Daily 6 hours	Direct supervision
	Journal club, didactic teaching sessions	Weekly 1-2 hours	Didactic, discussion
	Multidisciplinary hepatopancreatobiliary radiology meeting	Fortnightly 1 hour	Multidisciplinary discussion
	Multidisciplinary hepatopancreatobiliary tumour board meeting	Weekly 1 hour	Multidisciplinary discussion
<b>9. Assessment and Evaluation</b>	<p>Clinical Fellow will need to demonstrate their proficiency level based on the following competencies:</p> <ol style="list-style-type: none"> <li><b>1) Patient Care</b> Manage patients' pre and post endoscopy with emphasis on pre procedure preparation and post procedure monitoring for complications. Perform endoscopy competently for the patients.</li> <li><b>2) Medical Knowledge</b> Able to understand the indications and contraindications for the procedure. Able to understand the disease and pathophysiology and how endoscopy will be able to help manage the disease process.</li> <li><b>3) Practice-Based Learning and Improvement</b> Able to understand the role of endoscopy in management of patients.</li> <li><b>4) Interpersonal and Communication Skills</b> Able to work well with nursing, medical staff in the endoscopy centre.</li> <li><b>5) Professionalism</b> Be responsible for patients undergoing endoscopy. To be collegial and be a good team player.</li> <li><b>6) Systems-Based Practice</b> Understand the role of surgery, oncology, radiology and pathology in the multidisciplinary management of patients. To be able to coordinate care between these subspecialties.</li> </ol>		

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9.1 Assessment approaches	<p><b>Formative assessment:</b></p> <ul style="list-style-type: none"> <li>Regular evaluation between Clinical Fellow and Supervisor / Head of Department</li> <li>Reflective journal- logbook recordings of training activities</li> </ul> <p><b>Summative assessment:</b> Periodical assessment reports as required by Singapore Medical Council</p> <p><b>Feedback:</b></p> <ul style="list-style-type: none"> <li>End-of-training feedback form as required by Singapore Medical Council</li> <li>End-of-training feedback session with SGH-PGMI</li> </ul>															
9.2 Evaluation Process 9.2.1 General overall grading system	<p>The general overall grading system evaluates the Clinical Fellow's performance upon completion of the fellowship programme. All Clinical Fellows will be given a general overall grading status at the end of the fellowship programme based on the grading criteria requirements incorporating the six competencies based knowledge, skills and performance that Clinical Fellow must demonstrate throughout the programme.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #4F81BD; color: white;">Grading Status</th> <th style="background-color: #4F81BD; color: white;">Description</th> <th style="background-color: #4F81BD; color: white;">Grading Criteria Requirements</th> </tr> </thead> <tbody> <tr> <td><b>CMP</b></td> <td>Completes the programme</td> <td> <ul style="list-style-type: none"> <li>Fulfils all training requirements in all 6 domains of evaluation with at least a satisfactory grading</li> </ul> </td> </tr> <tr> <td><b>USP</b></td> <td>Unsatisfactory performance</td> <td> <ul style="list-style-type: none"> <li>Fulfils only some training requirements in all 6 domains of evaluation with at least a satisfactory grading</li> </ul> </td> </tr> <tr> <td><b>DCP</b></td> <td>Did not complete the programme</td> <td> <ul style="list-style-type: none"> <li>Did not fulfil any training requirements in all 6 domains of evaluation with at least a satisfactory grading</li> </ul> </td> </tr> <tr> <td><b>WDN</b></td> <td>Withdrawn from the programme</td> <td> <ul style="list-style-type: none"> <li>Clinical Fellow withdraws from the programme or did not complete the required 12 months of fellowship training</li> </ul> </td> </tr> </tbody> </table>	Grading Status	Description	Grading Criteria Requirements	<b>CMP</b>	Completes the programme	<ul style="list-style-type: none"> <li>Fulfils all training requirements in all 6 domains of evaluation with at least a satisfactory grading</li> </ul>	<b>USP</b>	Unsatisfactory performance	<ul style="list-style-type: none"> <li>Fulfils only some training requirements in all 6 domains of evaluation with at least a satisfactory grading</li> </ul>	<b>DCP</b>	Did not complete the programme	<ul style="list-style-type: none"> <li>Did not fulfil any training requirements in all 6 domains of evaluation with at least a satisfactory grading</li> </ul>	<b>WDN</b>	Withdrawn from the programme	<ul style="list-style-type: none"> <li>Clinical Fellow withdraws from the programme or did not complete the required 12 months of fellowship training</li> </ul>
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9.3 Criteria for Early Termination	<p>The attachment programme will be terminated early on the ground of the Clinical Fellow's poor performance, misdemeanour, misconduct, negligence or breach of any terms stipulated or referred to in the Fellowship Letter of Offer and Institution Terms and Conditions.</p> <p>The Clinical Fellow may also request to terminate the attachment programme for reasons such as serious illness or other personal obligations. The institution will review all requests for early termination with the Clinical Fellow and the Supervisor / Head of Department.</p>															

**COLLEGE OF CLINICAL MEDICINE  
INTERVENTIONAL ENDOSCOPY EUS/ERCP  
FELLOWSHIP ATTACHMENT PROGRAMME IN SGH**

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<b>10. Course Administration</b>	Type of Certification: Certificate of Training  Training Fee: S\$3,210 per month  Programme Funding source: Self-funded
<b>11. Number of Clinical Fellow to be accepted at any one time</b>	2