



Department of Obstetrics and Gynaecology
Queen Mary Hospital
The University of Hong Kong



Gynaecological Oncology

Annual Report 2019



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**HKU
Med**

LKS Faculty of Medicine
Department of Obstetrics
& Gynaecology
香港大學婦產科學系

Message from Division Head

The gynaecological oncology division of the Department of Obstetrics and Gynaecology, the University of Hong Kong, has been providing training and service in gynaecological oncology for over 50 years. Our unit is a tertiary referral center for both the private and public sectors in Hong Kong. We also accept referrals from the hospitals in Macau. With collaboration with other departments, our scope of services includes colposcopy, chemotherapy, radiotherapy, surgery and palliative care.

Our unit is a recognized training center for gynaecological oncology by the Hong Kong College of Obstetricians and Gynaecologists (HKCOG) and the Royal College of Obstetricians and Gynaecologists (RCOG). In 2019, we had Dr. Victoria Chai with us for her third year of subspecialist training in gynaecological oncology. Apart from training subspecialist fellow, we also provide gynaecological oncology training for basic and higher specialist trainees in Obstetrics and Gynaecology, not only from our unit but also other hospitals in Hong Kong.

In November 2019, we invited Dr John Latimer, a gynaecological oncologist from the Cambridge University Hospitals in the United Kingdom as the Licentiate Examiner.

In addition to clinical service and research activities, our division was also active in promoting women's health in Hong Kong by giving public talks and presentations in the Family Planning Association, radio and TV programmes.

I would like to take this opportunity to thank our team members and our collaborators for their contribution.



H.Y.S. Ngan

Tso Yin-Kai Professor

Head of Department

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Staff List

Gynaecological Oncologists

Professor Ngan Yuen Sheung Hextan, Professor, Department of Obstetrics and Gynaecology, University of Hong Kong

Dr. Chan Kar Loen Karen, Associate Professor, Department of Obstetrics and Gynaecology, University of Hong Kong

Dr. Tse Ka Yu, Associate Professor, Department of Obstetrics and Gynaecology, University of Hong Kong

Dr. Chu Man Yee Mandy, Consultant, Department of Obstetrics and Gynaecology, Queen Mary Hospital

Dr. Ngu Siew Fei, Assistant Professor, Department of Obstetrics and Gynaecology, University of Hong Kong

Subspecialist Trainee

Dr. Chai Yu Ka Victoria, Associate Consultant, Department of Obstetrics and Gynaecology, United Christian Hospital

Specialist Gynaecologists

Dr. Chan Man Ka Diana, Resident Specialist, Department of Obstetrics and Gynaecology, Queen Mary Hospital (1 Jan – 30 Jun 2019)

Dr. Kwok Shuk Tak Gladys, Resident Specialist, Department of Obstetrics and Gynaecology, Queen Mary Hospital (1 Jul – 31 Dec 2019)

Residents

Dr. Ng Shu Man Carmen, Resident, Department of Obstetrics and Gynaecology, Queen Mary Hospital (1 Jan – 14 Feb 2019)

Dr. Chan Hey Yin Aaron, Resident, Department of Obstetrics and Gynaecology, Queen Mary Hospital (1 Apr – 15 May 2019)

Dr. Wai Kar On Joan, Lecturer, Department of Obstetrics and Gynaecology, Queen Mary Hospital (1 Apr – 30 Jun 2019)

Dr. Ng Wai Yan Vivian, Resident, Department of Obstetrics and Gynaecology, Queen Mary Hospital (1 Jul – 30 Sep 2019)

Clinical Oncologists

Dr. Luk Mei Yee, Chief of Service, Department of Clinical Oncology, Queen Mary Hospital

Dr. Siu Wai Kwan Steven, Consultant, Department of Clinical Oncology, Queen Mary Hospital

Pathologists

Professor Ng Oi Lin Irene, Head of Department, Department of Pathology, University of Hong Kong

Professor Cheung Nga Yin Annie, Professor, Department of Pathology, University of Hong Kong

Dr. Ip Pun Ching Philip, Associate Professor, Department of Pathology, Queen Mary Hospital

Consultant Colorectal Surgeon

Professor Law Wai Lun, Professor, Department of Surgery, Queen Mary Hospital

Dr. Oswens Siu-Hung Lo, Consultant, Department of Surgery, Queen Mary Hospital

Consultant Urologist

Dr. Tsu Hok Leung James, Consultant & Division Chief, Department of Surgery, Queen Mary Hospital

Consultant Plastic Surgeon

Dr. Chow Ling Yu Velda, Consultant & Division Chief, Department of Surgery, Queen Mary Hospital

Consultant Medical Oncologist

Professor Kwong Yok Lam, Division of Haematology, Medical Oncology and Bone Marrow Transplantation, Department of Medicine, University of Hong Kong

Consultant Radiologist

Dr. Lam Poy Wing Tina, Chief of Service, Department of Radiology, Queen Mary Hospital

Dr. Lee Yuen Phin Elaine, Assistant Professor, Department of Radiology, University of Hong Kong

Consultant Anaesthesiologist

Dr. Chee Yee Eot, Chief of Service, Department of Anaesthesiology, Queen Mary Hospital

Consultant Clinical Psychologist

Dr. Lina Wu, Senior Clinical Psychologist, Department of Psychiatry, Queen Mary Hospital

Medical Social Workers

Ms Au Suk Cheung Helen, Social Welfare Department

Nurse Specialist in Stoma Care

Ms. Chan Lai Hung, Nursing Officer, Queen Mary Hospital

Cluster Rehabilitative Palliative Care Team

Dr. Chan Kwok Ying, Consultant, Palliative Medicine Unit, Grantham Hospital

Dr. Li Cho Wing Bryan, Associate Consultant, Palliative Medicine Unit, Grantham Hospital

Ms. Chiu Ho Yan, Registered Nurse, Grantham Hospital

Clinical Research Team

Ms Lau Suk Kwan Lesley, Research Co-ordinator

Dr. Wei Na Tina, Research Co-ordinator

Ms. Yu Ping Ching Amy, Research Nurse (part-time)

Laboratory

Staff

Dr. Chan Wai David, Assistant Professor
Dr. Chan Wai Sun, Post-doctoral Fellow
Dr. Chan Yau Sang, Post-doctoral Fellow
Dr. Leung Ho Yin Thomas, Post-doctoral Fellow
Dr. Yung Ming Ho Mingo, Post-doctoral Fellow
Dr. Liu Si Stephanie, Research Officer
Dr. Siu Kwan Yee Michelle, Research Officer
Mr. Chan Chan Keung Milton, Technician
Mr. Chen Fu Shun, Senior Research Assistant
Dr. Chan Kin Tak, Research Assistant
Ms. He Fang Fang, Research Assistant
Miss Ling Sho Sarah, Research Assistant
Miss Lui Tsz Yiu Esther, Research Assistant
Miss Tang Wai Man Hermit, Research Assistant

Services

Hormonal assay and assays for tumour markers

Research tools

HPV detection and genotyping

ELISA

Immunohistochemistry

In situ hybridization assay

DNA, RNA and protein extractions

Conventional PCR and RT-PCR

Quantitative PCR

Quantitative RT-PCR

RNA protection assay

Western blot

DNA methylation analysis

DNA sequencing

Microarray analysis

Cell line and culture

Transfection study

RNAi study

Apoptotic assay

Clonogenic assay

Cytotoxicity assay

Cell proliferation assay

DNA copy number variation analysis

Protein co-immunoprecipitation

Gene cloning

In vivo animal study

Laser-captured microdissection

Hypoxia chamber
Flow cytometry
Yeast two hybrid
Fluorescent microscopy
Fluorescent stereomicroscopy
Li-Cor Odyssey CLx near-infrared fluorescence imaging system
Gel documentation system
Microplate reader
SpectraMax L Microplate Reader

3D organoids assay
Omics analysis
Omental conditioned medium model
Ex vivo omental-tumor model

Inpatient Services

Gynaecological oncology ward

22 beds in the open ward
2 private beds
3 day beds

Ward Manager

Ms. Hui Fung Ping, Susanna

Operating Theatre

2 Full-day lists per week

Operating Theatre Manager

Ms. Sylvia Wong

Outpatient Services

Colposcopy Clinic	4 sessions per week
Chemotherapy Clinic	1 session per week
Cancer follow-up Clinic	1 session per week
Trophoblastic Clinic	1 session per week
Day Chemotherapy	5 days per week
Patient Group Meeting	1 session per 3 weeks
Palliative Medicine Clinic	1 session per week
Pre-admission Clinic	1 session per week

Clinic In-charge

Ms. Chung Suk Man, Advanced Practice Nurse, S5, Queen Mary Hospital

Team Activities

Grand Round (Led by Prof. Hextan Ngan)	1 per week
Discussion of New Cases and Treatment (Led by Prof. Hextan Ngan)	1 per week
Radiology Meeting (Led by Prof. Hextan Ngan and Dr. Elaine Lee)	1 per week
Chemotherapy Meeting (Led by Prof. Hextan Ngan)	1 per week
Morbidities and Mortality Meeting (Led by Prof. Hextan Ngan)	1 per week
Pre-operative Round (Led by Prof. Hextan Ngan)	1 per week
Tumour Board Meeting/Pathology Review (Led by Prof. Hextan Ngan and Prof. Annie Cheung)	1 per week
Laboratory Research Meeting (Led by Prof. Hextan Ngan)	1 per month
Clinical Research Meeting (Led by Prof. Hextan Ngan)	1 per month

Outpatient Statistics

<i>Oncology Clinics Attendances</i>	2015	2016	2017	2018	2019
Cancer Follow-up Clinic	4249	4010	4183	4322	4207
Trophoblastic Clinic	766	907	856	726	667
Chemotherapy Clinic	2082	1894	1758	2044	2219
Preadmission Clinic	-	-	-	95	174
Research Clinic					15

Patient Group Meeting

Oncology patients support group which was led by:

Ms. Susanna Hui (Ward Manager)
Ms. Tang Lai Chun (Advanced Practice Nurse)
Ms. Cheng Sze Ki (Registered Nurse)
Ms Tam Siu Man (Registered Nurse)

Stoma patients support group which was led by:

Ms. Susanna Hui (Ward Manager)
Ms. Chan Lai Hung (Nursing Officer)
Ms Tam Siu Man (Registered Nurse)

Oncology patient support group:

Total no. of sessions: 13

Total no. of attendance: 100 patients + 46 relatives = 146

Stoma patient support group:

Total no. of sessions: 3

Total no. of attendance: 14 patients + 4 relative = 18

Annual patient group party:

Attendance: 77 patients + 17 relatives = 94

Colposcopy Services

Colposcopy Clinics

Queen Mary Hospital

4 sessions - Monday afternoon, Tuesday morning, Thursday and Friday afternoon

Cervical Smear Clinics (run by nurses)

Queen Mary Hospital

3 session - Monday afternoon, Tuesday morning and Thursday afternoon

WDTC

4 sessions - Monday and Tuesday (full day)

Statistics

New Cases	682
Follow-up	1378

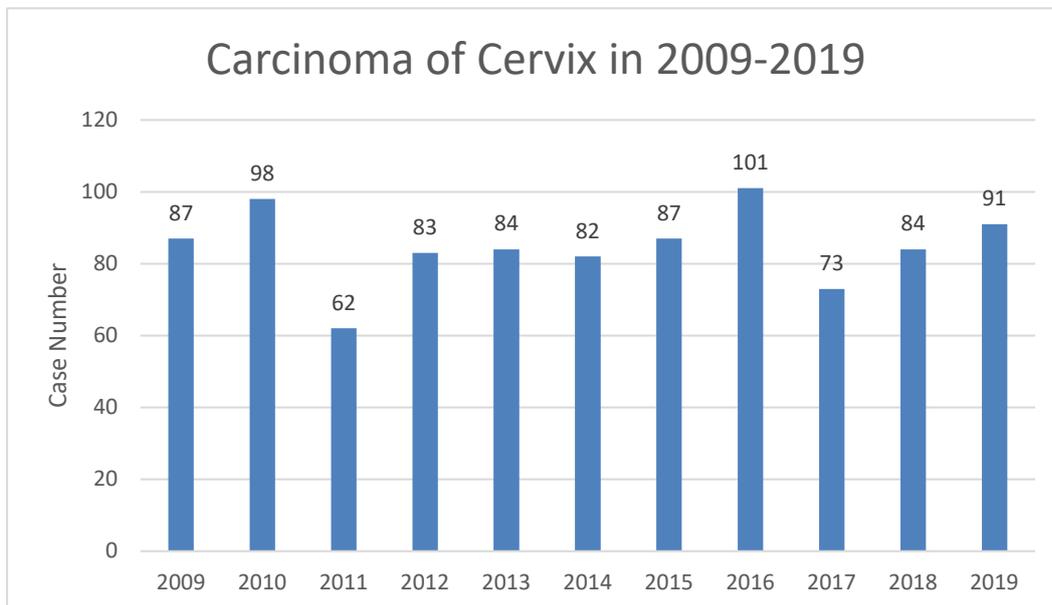
Diagnosis (based on worst histology)	Cervix	Vagina	Vulva
Normal	100	24	
Inflammation	47		1
Warts/HPV	130	4	1
Low grade squamous intraepithelial lesion	207	18	
High grade squamous intraepithelial lesion	97	7	
Microinvasive carcinoma			
Squamous cell carcinoma	4		
Adenocarcinoma	3		
Adenocarcinoma in-situ	1		
No histology	94	14	
Unsatisfactory for assessment	9		
Others			
Atrophy	2		
Atypical cells	2		
Endocervical polyp	2		
Metastatic adenocarcinoma	1		
Paget's disease			1
Recurrence of cervical cancer		1	

Procedures

Cone biopsy	2
Cryotherapy	1
Large loop excision of transformation zone	103
Under local anaesthesia	95
Under general / spinal anaesthesia	9

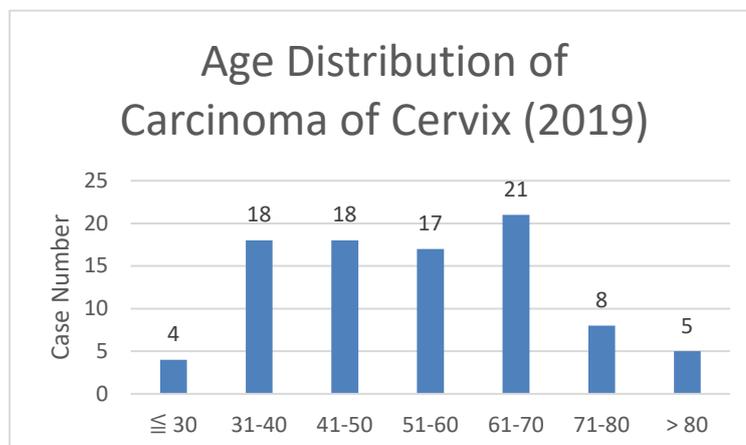
Cervical Malignancies

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Number of New cases	87	98	62	83	84	82	87	101	73	84	91
Stage I	49	36	26	36	42	42	43	36	36	33	27
Stage II	17	35	27	22	21	19	17	26	18	24	23
Stage III	13	11	4	15	16	14	12	14	11	11	18
Stage IV	4	5	3	5	3	2	6	8	3	9	14
Unstaged	2	3	1	1	1	3	0	5	2	4	1
Recurrence	2	8	1	4	1	2	9	12	3	3	8



2019 New Case

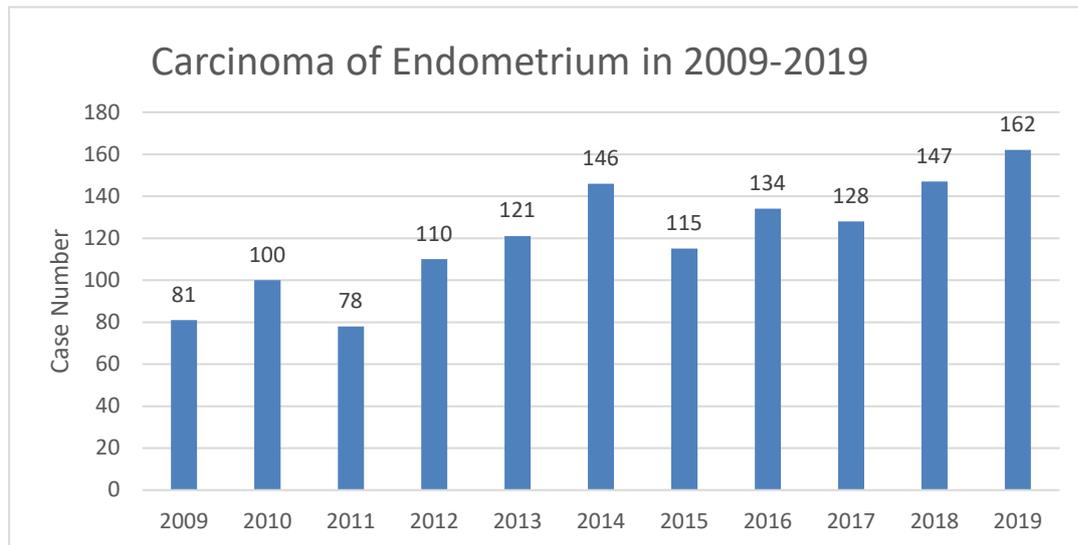
Age	Case Number
≤ 30	4
31-40	18
41-50	18
51-60	17
61-70	21
71-80	8
> 80	5
Total	91



Uterine Malignancies

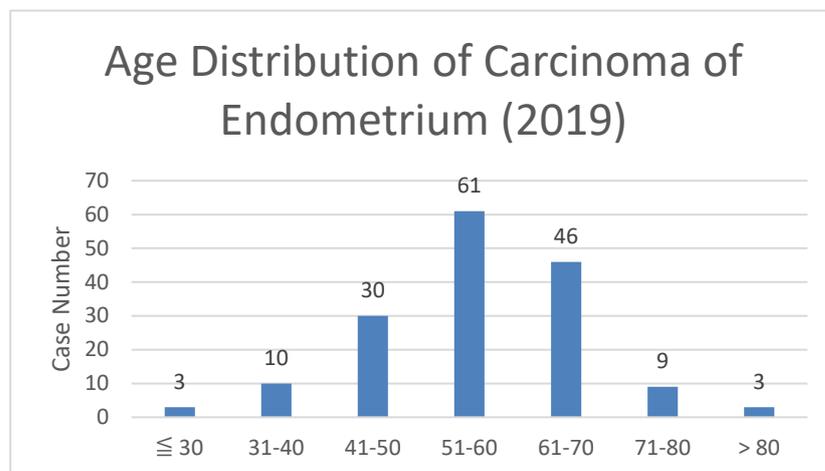
Carcinoma of Endometrium

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Number of New Cases	81	100	78	110	121	146	115	134	128	147	162
Stage I	43	64	45	64	70	83	69	88	81	88	106
Stage II	7	10	5	10	8	16	10	10	11	14	9
Stage III	10	15	16	23	25	26	18	23	24	26	24
Stage IV	4	4	5	4	5	12	7	9	6	13	12
Unstaged	12	6	4	7	10	8	7	2	3	5	2
Recurrence	5	1	3	2	3	1	4	2	3	1	9



2019 New Case

Age	
≤ 30	3
31-40	10
41-50	30
51-60	61
61-70	46
71-80	9
> 80	3
Total	162



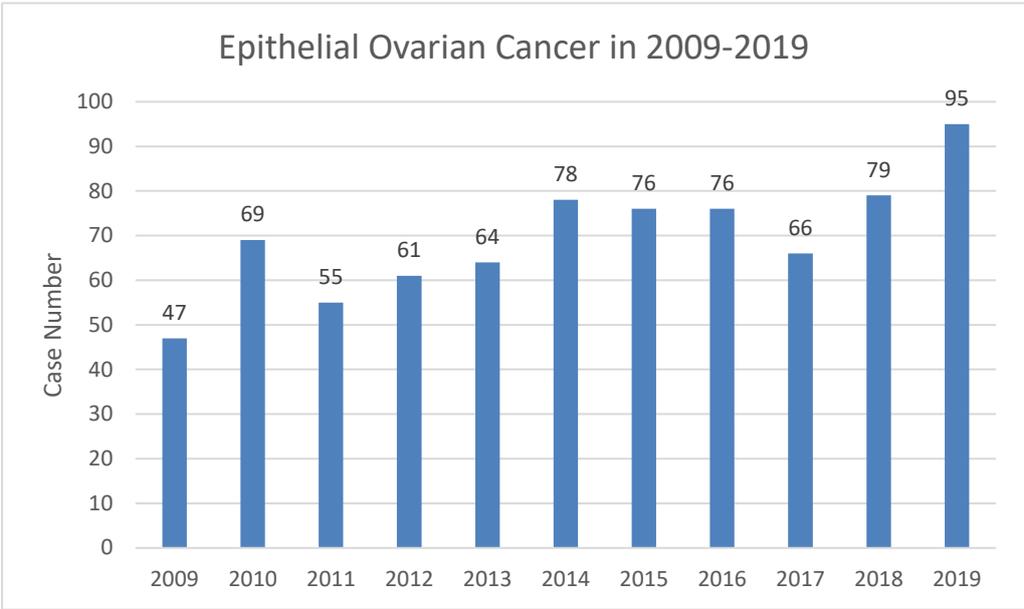
Other Uterine Malignancies

	2014	2015	2016	2017	2018	2019
Endometrial stromal sarcoma	3	3	5	3	8	3
Leiomyosarcoma	6	6	5	14	7	9
Malignant mixed mullerian tumor (MMMT)	14	5	8	11	8	8
Adenosarcoma	2	0	0	1	0	0
Chondrosarcoma	0	0	0	1	0	0
Rabdomyosarcoma	0	0	0	1	0	0
Smooth muscle tumour of undetermined malignant potential (STUMP)	1	1	3	0	1	3
Dedifferentiated endometrial carcinoma	0	0	0	1	0	0
Undifferentiated endometrial sarcoma	0	2	0	0	0	1
Uterine tumour resembling ovarian sex cord tumour	0	0	0	1	0	0
Uterine small cell carcinoma	0	0	1	0	1	0
Undifferentiated carcinoma	0	0	1	1	4	0

Ovarian Malignancies

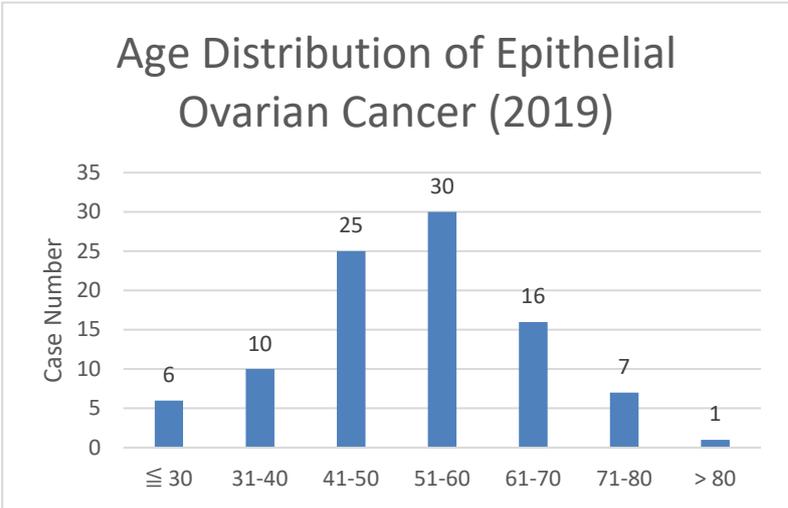
Epithelial Ovarian Cancer

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Number of New cases	47	69	55	61	64	78	76	76	66	79	95
Stage I	21	21	22	26	30	25	22	32	14	27	40
Stage II	3	4	6	9	7	7	5	4	11	2	8
Stage III	11	13	21	16	16	32	33	16	22	14	25
Stage IV	4	15	6	4	10	9	10	13	12	14	15
Unstaged	0	7	0	2	1	1	1	2	1	1	0
Recurrence	8	9	0	4	0	4	5	9	6	21	7



2019 New Case

Age	
≤ 30	6
31-40	10
41-50	25
51-60	30
61-70	16
71-80	7
> 80	1
Total	95



Ovarian Tumour of Low Malignant Potential

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of new cases	15	13	8	19	19	19	18	13	22	12	13
Stage I	12	11	7	15	14	15	16	6	19	10	12
Stage II	0	0	0	0	2	1	0	1	2	0	0
Stage III	1	1	0	2	2	2	2	1	0	1	1
Unstaged	0	0	0	0	1	0	0	0	0	0	0
Recurrence	1	1	1	2	0	1	0	4	1	0	0

Germ Cell Tumour

3 patients had stage 1c immature teratoma.

1 patient had stage at least 1a yolk sac tumour.

1 patient had stage 4 yolk sac tumour.

1 patient had stage 1a dysgerminoma

1 patient had stage at least 1c1 dysgerminoma

Sex Cord-Stromal Tumour

2 patients had stage 1a granulosa cell tumour.

1 patient had unstaged granulosa cell tumour.

1 patient had stage 2a granulosa cell tumour.

3 patients had recurrent granulosa cell tumour.

Other Ovarian Malignancies

1 patient had stage 1c2 mesonephric-like carcinoma.

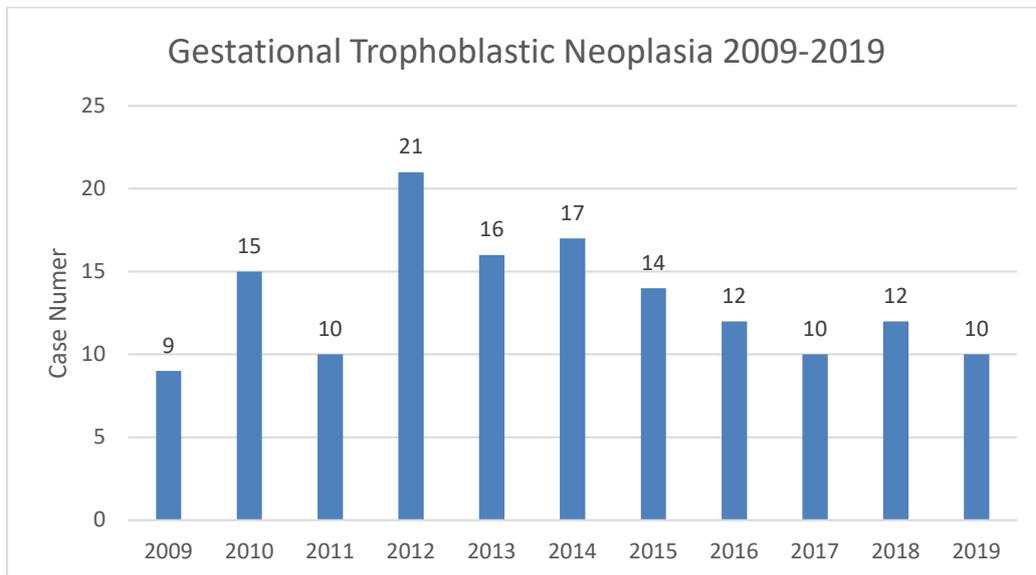
1 patient had recurrent carcinosarcoma.

Primary Peritoneal Carcinoma

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total	10	19	3	13	10	10	9	15	9	11	16
Stage II			0	2	0	0	0	1	0	0	0
Stage III			1	5	7	4	7	9	1	6	8
Stage IV			2	5	3	4	1	4	3	4	7
Unstaged			0	1	0	1	0	1	4	1	1
Recurrence			0	0	0	1	1	0	1	0	0

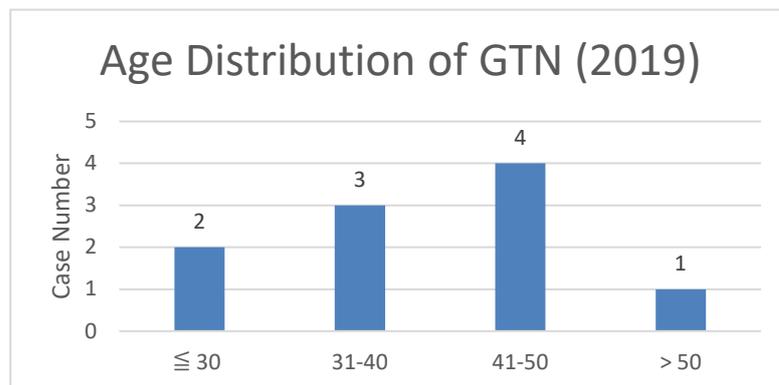
Gestational Trophoblastic Neoplasia

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of New cases	9	15	10	21	16	17	14	12	10	12	10
Stage I	6	10	9	18	12	10	8	8	8	9	6
Stage II	1	1	1	0	0	1	0	0	0	1	0
Stage III	2	1	0	2	2	5	2	2	2	2	2
Stage IV	0	1	0	1	2	0	1	1	0	0	1
Unstaged	0	0	0	0	0	0	0	0	0	0	1
Recurrence	0	2	0	0	0	1	1	1	0	0	0



2019 New case

Age	
≤ 30	2
31-40	3
41-50	4
> 50	1
Total	10



Vulval, Vaginal and Fallopian Tube Cancers

Vulval Cancer

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of New Cases	8	11	5	8	7	9	6	6	9	12	9
Stage I	1	5	0	2	4	4	0	3	6	2	2
Stage II	2	0	0	1	0	0	1	0	0	4	0
Stage III	2	2	2	1	1	3	1	1	3	1	2
Stage IV	2	1	1	2	1	0	1	0	0	1	2
Unstaged	1	2	2	1	0	1	1	1	0	2	2
Recurrence	0	1	0	1	1	1	2	1	0	2	1

Vaginal Cancer

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of New Cases	4	0	5	8	3	3	5	7	5	5	4
Stage I	0	0	0	2	0	1	0	0	0	0	0
Stage II	2	0	4	1	1	1	4	5	1	3	2
Stage III	1	0	1	1	0	0	0	0	1	2	0
Stage IV	0	0	0	2	2	0	1	1	2	0	0
Unstaged	1	0	0	1	0	0	0	0	0	0	1
Recurrence	0	0	0	1	0	1	0	1	1	0	1

Fallopian Tube Cancer

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of New Cases	3	0	0	1	0	3	2	5	4	2	1
Stage I	1	0	0	1	0	0	0	0	1	0	0
Stage II	0	0	0	0	0	0	0	1	2	0	0
Stage III	1	0	0	0	0	1	0	2	0	1	1
Stage IV	1	0	0	0	0	2	2	1	1	0	0
Unstaged	0	0	0	0	0	0	0	0	0	0	0
Recurrence	0	0	0	0	0	0	0	1	0	1	0

Multiple Primary Malignancies

2019 Number
17

Primary	Stage	Primary	Stage	Number
Corpus	I	Ca Ovary	I	7
	I	Granulosa Cell Tumour	I	1
	I	Ca Fallopian Tube	II	1
	I	Ca Fallopian Tube	III	1
	I	Ca Lung	III	1
	II	Ca Fallopian Tube	III	1
	III	Ca Thyroid	IV	1
	I	Ca Ureter	III	1

Triple primary case

2 patients had Ca Corpus stage I and bilateral Ca Ovary stage I.

1 patient had Ca Corpus stage II and bilateral Ca Ovary stage I.

Operation for Malignant/Pre-malignant Diseases

	Number of procedures
Laparotomy (all cases with open abdominal surgery)	124
Radical hysterectomy +/- unilateral / bilateral salpingo-oophorectomy (U/BSO)	4
Laparoscopic radical hysterectomy +/- U/BSO	0
Laparoscopic radical hysterectomy +/- U/BSO (Da Vinci)	4
Modified radical hysterectomy +/- U/BSO	6
Laparoscopic modified radical hysterectomy +/- U/BSO (Da Vinci)	4
Total abdominal hysterectomy +/- U/BSO	100
Total laparoscopic hysterectomy +/- U/BSO	49
Total laparoscopic hysterectomy +/- U/BSO (Da Vinci)	24
Laparoscopic radical trachelectomy (Da Vinci)	1
Pelvic lymphadenectomy (one side)	89
Laparoscopic pelvic lymphadenectomy (one side)	21
Laparoscopic pelvic lymphadenectomy (one side) (Da Vinci)	66
Paraaortic lymphadenectomy	41
Laparoscopic paraaortic lymphadenectomy	2
Laparoscopic paraaortic lymphadenectomy (Da Vinci)	18
Omentectomy	71
Laparoscopic omentectomy	6
Laparoscopic omentectomy (Da Vinci)	8
Adhesiolysis	21
Laparoscopic adhesiolysis	8
Laparoscopic adhesiolysis (Da Vinci)	4
BSO / USO / ovarian cystectomy	8
Laparoscopic BSO / USO / ovarian cystectomy	9

Appendicectomy	12
Laparoscopic appendicectomy	1
Laparoscopic appendicectomy (Da Vinci)	1
Debulking surgery	33
HIPEC	4
Bowel resection and re-anastomosis	6
Colostomy / ileostomy	4
Closure of stoma	3
Repair of bowel	5
Repair of bladder	0
Repair of vessels	0
Repair of vagina / perineum	4
Vault stripping / vaginectomy	8
Wide local excision of vulva	2
Radical vulvectomy	6
Groin node dissection (one side)	15
Cone biopsy	1
Large loop excision of transformation zone	2
Brachytherapy	40
Removal or insertion of central line insertion	2
Diagnostic hysteroscopy	8
Hysteroscopic polypectomy	2
Suction evacuation	1
Laparoscopic biopsy	7
Diagnostic laparoscopy	7
Examination under anaesthesia	1
Cystoscopy	1

Chemotherapy

Total number of patients receiving in-patient chemotherapy: 241

Total number of patients receiving out-patient chemotherapy: 258

Total number of patients receiving oral chemotherapy: 3

Total number of patients receiving PARP inhibitors: 25

Chemotherapy Regimen	Number of courses	
	In patient	Outpatient
Adriamycin	8	12
Adriamycin/Cisplatin	1	4
Avelumab/Axitinib (clinical trial)	9	0
BEP (bleomycin, etoposide, cisplatin)	5	11
Bevacizumab	7	42
Carboplatin	19	38
Carboplatin/Etoposide	1	6
Carboplatin/Gemcitabine	8	9
Carboplatin/Gemcitabine/Bevacizumab	1	5
Carboplatin/Iriontecan	2	0
Carboplatin/Liposomal doxorubicin	9	31
Carboplatin/Paclitaxel	348	580
Carboplatin/Paclitaxel (weekly)	1	0
Carboplatin (weekly)/Paclitaxel (weekly)	2	0
Carboplatin/Paclitaxel/Bevacizumab	19	17
Cisplatin	32	89
Cisplatin/Etoposide	1	0
Cisplatin/Gemcitabine	3	2
Cisplatin/Gemcitabine/Bevacizumab	1	0
Cisplatin/Paclitaxel	14	4
Cisplatin/Paclitaxel/Bevacizumab	7	0
Cyclophosphamide (oral)	0	9
EMA-CO (etoposide, methotrexate and actinomycin D/ cyclophosphamide and vincristine)	1	0
Etoposide (oral)	0	1
Gemcitabine	23	77

Gemcitabine/Taxotere	0	3
Ifosfamide	3	0
Liposomal doxorubicin	35	35
Liposomal doxorubicin/Bevacizumab	1	20
Methotrexate (intravenous)	26	0
Methotrexate/Actinomycin D	19	0
Niraparib	0	57
Olaparib	0	118
Paclitaxel	6	14
Pembrolizumab	4	0
Topotecan	34	56
Topotecan/Bevacizumab	1	10
XELOX (capecitabine and oxaliplatin)	2	3
Total number of courses of chemotherapy	653	1253

Publications

Scholarly books, monographs and chapters

Ngu S.F. and Chan K.K.L., Genital Tract Cancers, In: Department of Obstetrics and Gynaecology, The University of Hong Kong, *Practical Obstetrics and Gynaecology*. Hong Kong, Department of Obstetrics and Gynaecology, HKU, 2019, 247-263.

Journal publications

An H., Chiu W.H.K., Tse K.Y., Ngan H.Y.S., Khong P.L. and Lee E.Y.P., The Value of Contrast-Enhanced CT in the Detection of Residual Disease After Neo-Adjuvant Chemotherapy in Ovarian Cancer, *Academic Radiology*. 2019, 27, 951-957.

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Prizes and awards

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