

UNION

connection

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Message from the Chief Hospital Manager

Dear Colleagues,

Now that the Covid-19 virus infection is being regarded as an epidemic infectious disease with low pathogenicity (the Omicron strain), it is time for us to make a tally of what this emerging infectious disease had done to us, i.e. on the human resource and what we have done in response. The loss will be difficult to assess in dollar terms but I would like to give you a glimpse on what our staff had achieved during the first phase of this pestilence which probably began in January 2020. We provided Covid-19 vaccination service for the public at our Tai Wai campus, satellite polyclinics and outpost at the Hong Kong Jockey Club Shatin Clubhouse to a total of more than 30,000 doses. During the following year we opened the Tai Po Hui Sports Centre Community Vaccination Centre for the HK Department of Health and vaccinated a total of 227,748 individuals. In April 2020 we established molecular testing by the RT-PCR (reverse transcription polymerase chain reaction) technique in our pathology laboratory which performed a total of 472,142 tests (up to January 2023) with 6,686 positives identified. Amongst these positives 2,660 came from testing for staff of the Hong Kong Jockey Club which sent us a total of 335,039 requests for Covid-19 PCR.

According to data from our Human Resource Department, we had an average of 1,776 full-time staff in the 12 months period from February 2022 to January 2023. A total of 1,069 staff reported sick with Covid-19 and they were given leave for 5 to 7 days from work. This came up to about 6,500 man-days for the year. Taking a very conservative average wage of \$1000 per day, we came up with a total loss of \$6.5 million in human resource. During the year our hospital spent around \$2.5 million in PPE (personal protective equipment) for our staff. Thus the total amount spent on our staff in the twelve months in the war against Covid-19 came up to about \$9 million. This was despite a high vaccination rate of 99.3% (at least 2 doses) or 80.8% (at least 3 doses) amongst our staff.

Although the above stocktake figures are alarming, we did manage to provide a safe and reliable quality service to our patients, both within the hospital campus and in our satellite Polyclinics and Ambulatory Procedure Centres. Notwithstanding all the above, we also achieved the highest number of newborns in our maternity unit amongst the private sector, the services of which are well renowned and heaped with compliments in social media and portals like the Baby Kingdom.

Now that the clinical harm from Covid-19 infection (Omicron strain) has been much down-graded, it does not mean that it is leaving us for good. In the past three months, Hong Kong has been ravished by four active pathogenic viruses, namely influenza, respiratory syncytial virus, rhinoviruses and Covid-19. Although none of these need to be reported to the Centre of Health Protection on a mandatory basis, unofficial figures claimed that there were about ten thousand cases of Covid-19 daily! Thus my take home message is - do not throw away your surgical masks and do keep them at hand for wearing when in a crowded environment. It is better to be safe than to be sorry!

Cheerio,

Dr Anthony K Y Lee

Chief Hospital Manager & Medical Director

Role of Interventional Radiology in Induction of Hepatic Hypertrophy

Dr So Kin Wai
Specialist in Radiology
Union Hospital



Although surgical resection of hepatic malignancies has been shown to improve survival, surgical resectability is restricted by tumor site of metastases, liver function and future liver residual (FLR) size.

To reduce the post-hepatectomy liver failure rate, it is recommended to induce liver hypertrophy prior to resection. Current guideline recommends minimal FLR volume to be 20%, 30% and 40% in patients with normal liver, with extensive chemotherapy prior to surgery and with cirrhosis respectively¹.

Portal vein embolization (PVE) is a technique for inducing hypertrophy of the FLR in the past three decades. It has been demonstrated by Charalel et al in a systemic review surveying total of 636 patients and other further studies to be safe and efficacious with successful FLR hypertrophy ranging 13% to 40% and only 5% significant complication rate²⁻⁴. The major limitation of PVE is insufficient FLR hypertrophy in 9% to 40% of patients limiting future hepatectomy^{2,5} and local disease progression before liver resection.

Associated liver partition and portal vein ligation for staged hepatectomy (ALPPS) is another procedure to induce hypertrophy of the FLR which involves ligation of a right portal vein branch in the first stage, followed by resection of the diseased liver. Charalel et al demonstrates that ALPPS is associated with excellent FLR hypertrophy (54.9%) at the expense of increased major complication rate (38%)².

Hepatic and portal vein embolization (HPVE) is an emerging technique to improve hypertrophy compared to PVE without the complications associated with ALPPS. The crucial step of HPVE is pre-procedural planning emphasized on evaluation of anatomy, including disease burden, liver volumes and vascular anatomy, especially presence of accessory hepatic vein. Failure of embolization of accessory hepatic vein would lead to suboptimal efficacy. Either the right portal vein or combination with segment 4 portal veins will then be embolized, typically with N-butyl cyanoacrylate (NBCA) glue. Followed PVE, the targeted hepatic vein(s) could be accessed via the right internal jugular vein with an angled sheath where Amplatzer vascular plugs would be deployed for embolization, leaving the proximal 2 cm of the hepatic vein intact to allow surgical manipulation during subsequent hepatectomy.

The success of HPVE has been demonstrated by various studies. A retrospective study by Heli et al studying 199 patients in seven centers shows higher hepatectomy rate (90% vs 68.1%, $p=.007$) and high percent hypertrophy (59% vs 48%, $p=.020$) in HPVE group as compared with PVE group⁶. Systematic review by Esposito et al with a total of 68 patients shows a degree of hypertrophy from 33% to 63.3%, with 100% technical success rate, 85.3% hepatectomy rate and absence of major complication after HPVE⁷.



CONCLUSION

Studies have shown that HPVE is capable of inducing hypertrophy of FLR to allow higher hepatectomy rate with reduced major complications which is performed by embolization of the right hepatic veins and branch(es) of hepatic vein in the same session. Further randomized controlled trial (HYPER-LIV 01) and prospective multi-center trials (DRAGON 1 and DRAGON 2) are on-going and could potentially solidify evidence supporting HPVE in the future.

References

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2. CharalelRA, SungJ, AskinG, JoJ, MitryM, ChungC, et al. Systematic Reviews and Meta-Analyses of Portal Vein Embolization, Associated Liver Partition and Portal Vein Ligation, and Radiation Lobectomy Outcomes in Hepatocellular Carcinoma Patients. *Curr Oncol Rep.* 2021 Oct;23(11):135.
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4. PamechaV, GlantzounisG, DaviesN, FusaiG, SharmaD, DavidsonB. Long-term survival and disease recurrence following portal vein embolisation prior to major hepatectomy for colorectal metastases. *Ann Surg Oncol.* 2009 May;16(5):1202–7.
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Union Hospital Reproductive Medicine Centre

Professor Li Tin Chiu

Head, Department of Reproductive Medicine
Specialist in Reproductive Medicine



The Union Hospital Reproductive Medicine Centre (URMC) was first established in October 2000, when it was located on the first floor of Union Hospital in Taiwai, occupying no more than 1,500 square feet of combined clinic and laboratory space. It has continued to grow ever since. In 2009, it added another 1,300 square feet of clinic space on the second floor of the hospital. In July 2010, a sister unit with a floor space of 4,000 square feet was opened in Mira Place in Tsim Sha Tsui to meet the demand of a steadily expanding service. Then, in June 2021, the two sister units were relocated to a single centre on the 12th floor of H-Zentre, Tsim Sha Tsui with a combined floor space of 17,000 square feet to support the growth of not just an increased volume, but also the development of a much wider range of services in Reproductive Medicine and subfertility. The new unit is very much welcomed by staff and patients alike because of its convenient location, serene environment, comfortable space, and a more efficient, centralised service.

A wider range of services

The new URMC now provides not only various traditional assisted conception treatments such as ovulation induction, intrauterine insemination and in-vitro-fertilization (IVF), but also a comprehensive range of modern treatment options. The newly established early pregnancy unit (EPU) is a notable example. It offers specialised service to confirm the location and viability of pregnancy at a very early stage with the state-of-the-art 3D ultrasound equipment and in-house hormone assays with a reporting time of an hour or so. It also offers comprehensive investigation and treatment of recurrent miscarriage according to international guidelines and consensus.



The new URMC is not only licensed for day surgery but is also the first one of its kind in Hong Kong to be accredited by the government for providing a general anesthesia service outside a licensed hospital. The unit has made use of this special provision to develop a wide range of minor surgical procedures including surgical management of miscarriage, hysteroscopic surgery to remove polyps, septum and adhesions. The number of cases performed in URMC since its opening two years ago are shown below.

	Jul 2021 - Jun 2022	Jul 2022 - Jun 2023
Hysteroscopic procedures using MAC	0	46
Hysteroscopic procedures using IVS	2	15
Hysteroscopic procedure without MAC or IVS	250	183
Surgical management of miscarriage (manual vacuum evacuation)*	31	49
Other procedures (including surgical sperm extraction)	16	6

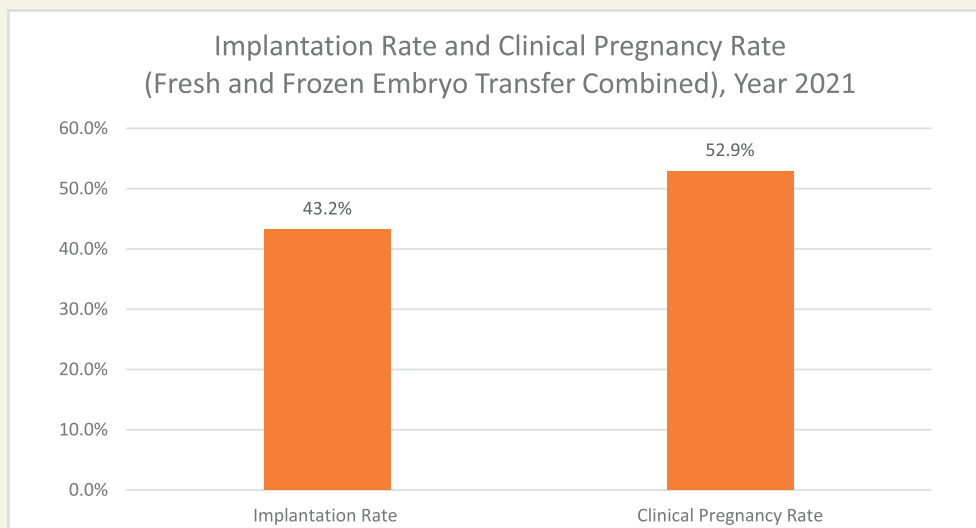
* 85% manual vacuum evacuation under ultrasound guidance, without MAC or IVS

A well-equipped team

The new unit is dedicated to increase training opportunities for our team members. It is most encouraging to know that 6 of our nurses completed a 3-modular "Basic course in Early Pregnancy Management for Nurses" organised by an international society, Asia Pacific Initiative on Reproduction (ASPIRE) in 2022, successfully passed the assessment at the end, leading to the award of a certificate. The additional training should lend invaluable support to the provision of services.

Encouraging treatment outcome

The new unit has continued to improve on the results of IVF treatment. Two key performance indicator, embryo implantation rate and clinical pregnancy rate per embryo transfer, are now over 40% and 50% respectively. The very encouraging results surely reflects the continuing increase in the standard of our laboratory and clinical services.



Reproductive Genetic Services



Dr Liauw Linna

Consultant in Obstetrics & Gynaecology
Union Hospital

The Union Reproductive Medicine Centre is expanding its range of services to include reproductive genetics to meet an ever-growing demand in this area. Genetics is developing at a very rapid pace, with applications not just in diagnosis but also in screening and treatment. Reproductive specialists are increasingly called upon to give advice to determine if pre-implantation screening and diagnosis is needed in couples who wish to know if they should undergo genetic screening prior to conception. Various sophisticated molecular diagnostic tools such as next generation sequencing, long-molecular sequencing, whole exome sequencing and others are being introduced into clinical practice, with the result that the list of genetic conditions which could be screened prior to conception is growing every week.

"Doctor, I just found out that my sister has delivered a baby with a genetic condition. Will this affect my future child?" "Could the condition be screened and avoided?" is a commonly asked question in our reproductive clinic. The URM is now able to provide counseling, screening and diagnosis of a range of genetic conditions and to offer pre-implantation genetic diagnosis prior to embryo transfer if needed.

We accept referral for couples with the following conditions

1. Carriers of common genetic diseases such as Thalassaemia, deafness, spinal muscular atrophy, hemophilia, various inborn error of metabolism, neurofibromatosis, tuberous sclerosis
2. Family history of genetic conditions such as polycystic kidneys, breast cancer with BRCA gene mutation
3. Request for carrier screening of recessive diseases prior to assisted conception
4. Recurrent miscarriage with possible genetic etiology
5. Consanguineous marriage of first- and second- degree relatives, e.g. cousins

Common conditions requiring preconception counseling

Thalassaemia

Spinal muscular atrophy

Hemophilia

Recurrent miscarriages

Family history of abnormal baby

Breast cancer with BRCA gene

For more information, please contact us at 3126 1623 or urmc@union.org

Health Talk for Shatin Community

Organized by Union Hospital and Shatin District Health Centre, a health talk titled "Prevention of Breast Cancer and Cervical Cancer" was held on 3 June, 2023 at Shek Mun and Facebook platform. The talk aimed to increase the awareness of the most common cancers in women and the importance of regular screening and vaccination. Over 300 participants attended the event and we received overwhelming response in Q&A session. Special thanks to Dr Choi Lai Yin and Dr Li Yau Chung to share their expertise with Shatin residents on the wonderful Saturday afternoon!



Post-Event Highlights



Updates on Keyhole Orthopaedic Surgery

Union Hospital hosted a CME lecture on Keyhole Orthopaedic Surgery on 19 May 2023. It was our pleasure to have Dr Lui Tun Hing to share his experience with our audiences. The lecture attracted over 100 attendants and they all found Dr Lui's presentation insightful and practical.



Updates on the Management of Head and Neck Cancers

On 9 June 2023, Dr Jason Chan from CUHK was invited to give a talk on "Updates on the Management of Head and Neck Cancers". The programme was well received by medical specialists and they appreciated Dr Chan's sharing on the new technique and case studies.

CME Programme

Upcoming Programme Updates on Management of Colorectal Cancer

Date : 21 July 2023 (Friday)

Time : 2:00pm-3:00pm

Venue : 8/F MIC, Union Hospital or Zoom

Speaker : **Dr Louisa Lui**

Consultant in Clinical Oncology
Union Hospital



Chairman: **Dr Fung Ming Kit, Terence**

Deputy Head, Department of Surgery
Consultant in General Surgery
Union Hospital

On-site (Premium Lunch served)



Zoom registration



Enquiry: 2608 3180 Email: cme@union.org

Union Hospital Transparent Treatment Packages

Our Reproductive Medicine Centre is committed to making our treatment more affordable and transparent to our clients. We are therefore offering a number of inclusive treatment packages to help clients choose the treatment plan which suit them best. The following are examples of some treatment packages.

Couple's Health Check-up 夫婦檢查計劃 Combo Discount (二人同行優惠)

Couple Fertility Plan - Basic 夫婦生育力評估基本計劃	\$4,080
Couple Fertility Plan - Premier 夫婦生育力評估優越計劃	\$8,480

Pre-conception Genetic Carrier Screening Plan 遺傳篩查計劃

Female Carrier Screening Plan 女士遺傳篩查計劃	\$10,800
Male Carrier Screening Plan 男士遺傳篩查計劃	\$7,800

Treatment Package 療程計劃

Intrauterine Insemination (IUI) 宮腔內人工授精	\$18,800
In Vitro Fertilization (IVF) 體外受孕 (試管嬰兒)	\$88,000
Oocyte Freezing 卵子冷藏	\$72,800

Enquiry : Union Reproductive Medicine Centre

Tel: 3126 1623 12/F, H Centre, 15 Middle Road, Tsim Sha Tsui, Kowloon

Trends of Cultured Pathogens

The Most Frequently Isolated Pathogens from Urine Cultures during January to April 2023

Most Common Pathogens Isolated	<i>Escherichia coli</i>	
	Jan to Apr 2023	Sep to Dec 2022
Period	Jan to Apr 2023	Sep to Dec 2022
Number of Isolates per Admission (Total number of Urine Cultures)	194 (2026) (Including 46 ESBL)	224 (2104) (Including 48 ESBL & 1 CPE)
Isolation Rate	9.57%↓	10.6%
Antibiotics	Non-susceptible Rate	
Amoxicillin/Clavulanic Acid	27%↑	26%
Ampicillin	71%	71%
Ampicillin/Sulbactam	58%↓	60%
Cefazolin (Oral)	28%↑	27%
Ceftriaxone/Cephalosporins 3G	24%↑	23%
Cefuroxime (Oral)	31%↓	32%
Cefuroxime (Parenteral)	29%↑	25%
Ciprofloxacin*	47%↓	55%
Ertapenem	0%↓	0.4%
Gentamicin	18%↓	24%
Imipenem	0%↓	0.4%
Levofloxacin*	59%↓	70%
Nitrofurantoin	3%	3%
Trimethoprim/Sulfamethoxazole	36%↑	35%

* Non-susceptible Rate of Levofloxacin & Ciprofloxacin is increased as the criteria for the interpretation of Susceptibility on Levofloxacin & Ciprofloxacin were changed on 1st April 2020.

The Most Frequently Isolated Pathogens from Respiratory Secretion Cultures during January to April 2023

Period	Jan to Apr 2023		Sep to Dec 2022	
	No of Request	497		259
Pathogens	Number of Isolates	Isolation Rate	Number of Isolates	Isolation Rate
<i>Pseudomonas aeruginosa</i>	21	4.2%↓	21	8.1%
<i>Staphylococcus aureus</i>	26 (Including 9 MRSA 34.6%)	5.2%↓	17 (Including 1 MRSA 5.9%)	6.5%
<i>Klebsiella pneumoniae</i>	20	4.0%↓	14	5.4%
<i>Escherichia coli</i>	9	1.8%↓	11	4.2%

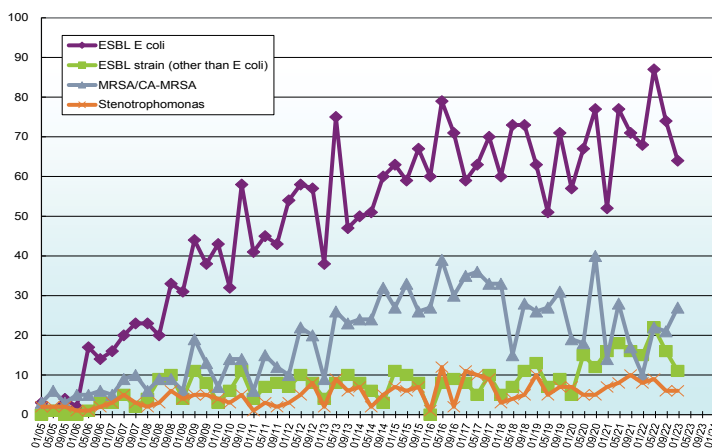
The Most Frequently Isolated Pathogens From Genital Cultures During January to April 2023

Most Common Pathogens Isolated	<i>Group B Streptococci</i>		<i>Candida albicans</i>		Yeast (<i>Candida albicans</i> excluded)	
	Jan to Apr 2023	Sep to Dec 2022	Jan to Apr 2023	Sep to Dec 2022	Jan to Apr 2023	Sep to Dec 2022
Period	Jan to Apr 2023	Sep to Dec 2022	Jan to Apr 2023	Sep to Dec 2022	Jan to Apr 2023	Sep to Dec 2022
Number of Isolates per Admission (Total number of Genital Cultures)	125 (735)	151 (799)	111 (735)	112 (799)	27 (735)	52 (799)
Isolation Rate	17.0%↓	18.9%	15.1%↑	14.0%	3.67%↓	6.5%
Antibiotics	Non-susceptible Rate					
Cefotaxime	0.0%	0.0%				
Clindamycin	54.0%↓	54.3%				
Levofloxacin	12.0%↓	12.6%				
Penicillin	0.0%	0.0%				
Vancomycin	0.0%	0.0%				

¹ Susceptible to penicillin can be considered susceptible to ampicillin, amoxicillin, amoxicillin/clavulanic acid, ampicillin/sulbactam, cefaclor, cefazolin, cefdinir, cefepime, cefprozil, cefotaxime, ceftriaxone, cefuroxime, cefpodoxime, ceftizoxime, cephalothin, cephapirin, imipenem, loracarbef, and meropenem.

Trend of ESBL, MRSA & Stenotrophomonas isolated from all specimen types by every four months

Trend of ESBL, MRSA & Stenotrophomonas isolated from all specimen types by quarter since 2005



	ESBL <i>E coli</i>	ESBL strain (other than <i>E coli</i>)	MRSA/CA-MRSA	<i>Stenotrophomonas</i>
Jan-Apr 17	59	8	35	11
May-Aug 17	63	5	36	10
Sep-Dec 17	70	10	33	9
Jan-Apr 18	60	5	33	3
May-Aug 18	73	7	15	4
Sep-Dec 18	73	11	28	5
Jan-Apr 19	63	13	26	10
May-Aug 19	51	7	27	5
Sep-Dec 19	71	9	31	7
Jan-Apr 20	57	5	19	7
May-Aug 20	67	15	18	5
Sep-Dec 20	77	12	40	5
Jan-Apr 21	52	16	14	7
May-Aug 21	77	18	28	8
Sep-Dec 21	71	16	17	10
Jan-Apr 22	68	15	10	8
May-Aug 22	87	22	22	9
Sep-Dec 22	74	16	21	6
Jan-Apr 23	64	11	27	6

New Clinical Sessions

Union Healthcheck Centre	
Booking & Enquiry: 2682 2313	Time Schedule
Developmental - Behavioral Pediatrics Dr. Lam Wai Fan, Fanny	Mon 10:00-13:00 14:00-17:00 (By Appointment)

Minimally Invasive Centre	
Booking & Enquiry: 2608 3383	Time Schedule
Orthopaedics & Traumatology Dr. Lam Kin Wai	Tue 11:30-15:30 Wed 12:30-15:30 Fri 10:00-13:00
Urology Dr. Cheng Kwun Chung	Mon 14:00-17:00 Wed 14:00-18:00 Fri 14:00-18:00 Sat 14:00-16:00

Specialty Clinic - Paediatrics	
Booking & Enquiry: 2608 3366	Time Schedule
Dr. Lau Wei Sze, Vercia	Mon 15:00-18:00 Tue 09:30-13:00 15:00-18:00 Wed 09:00-11:00* 15:00-18:00 Thu 09:00-13:00 Fri 09:30-13:00 Sat 09:30-14:00 15:00-18:00* * Will be on duty on alternate weeks

Union Hospital Dental Centre	
Booking & Enquiry: 2608 3393	Time Schedule
Dr. Esther Kong	Mon 09:00-13:00 14:00-18:00 Wed 09:00-13:00 14:00-17:00 Fri 09:00-13:00 14:00-18:00
Dr. Leung Ka Ming, Philip	Mon 09:00-13:00 14:00-18:00 Tue 09:00-13:00 Thu 09:00-13:00 14:00-18:00 Sat 09:00-12:00 13:00-18:00
Dr. Tang King Tai	Tue 09:00-13:00 14:00-18:00 Wed 09:00-13:00 14:00-18:00 Thu 09:00-13:00 14:00-18:00 Fri 09:00-13:00 14:00-18:00

Union Hospital Dental Centre (Tsim Sha Tsui)	
Booking & Enquiry: 2986 1166	Time Schedule
Dr. Esther Kong	Tue 09:00-13:00 14:00-18:00 Thu 09:00-13:00 14:00-18:00
Dr. Tang King Tai	Sat 09:00-13:00 14:00-17:00
Dr. Wong Pui Sze, Erica	Mon 09:00-13:00 14:00-18:00 Wed 09:00-13:00 14:00-18:00 Thu 09:00-13:00 14:00-18:00 Fri 09:00-13:00 14:00-18:00

New Doctors

Please extend a warm welcome to the following doctors for joining our clinical team!



Dr Ho Shu Wan
Specialist in
Family Medicine



Dr Tang King Tai
Dental Surgeon

Regular Meeting

Meeting : Mortality and Morbidity Meeting	
Date :	12 July 2023 (Wednesday)
Time :	8:30 a.m. – 9:30 a.m.
Co-ordinator:	Dr. KWONG Kwok Hung, Peter Specialist in General Surgery, Union Hospital
Venue:	Training Room, 8/F MIC, Hospital Building, Union Hospital
Booking & Enquiry:	2608 3151 (Quality Assurance and Training Dept.)

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