## DEPARTMENT OF ORTHOPAEDIC SURGERY,

### NATIONAL UNIVERSITY OF SINGAPORE



AUGUST 2020 : Issue 19

# TREE OF ANDRY



# SAFETY NEWSLETTEN

9300		
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#### Special points of interest:

- DEPARTMENT SAFETY & HEALTH OBJECTIVES,
   PROGRAMME & ORGANISATION CHART
- SAFETY & HEALTH AWARENESS & TRAINING PROGRAMME
- EMERGENCY RESPONSE & PREPAREDNESS PROGRAMME
- NUS SAFETY & HEALTH AWARD
- NUS COVID-19 PANDEMIC SAFETY MEASURES
- SPECIAL WELLNESS FOCUS
- NUS/OSHE SAFETY & HEALTH NEWS

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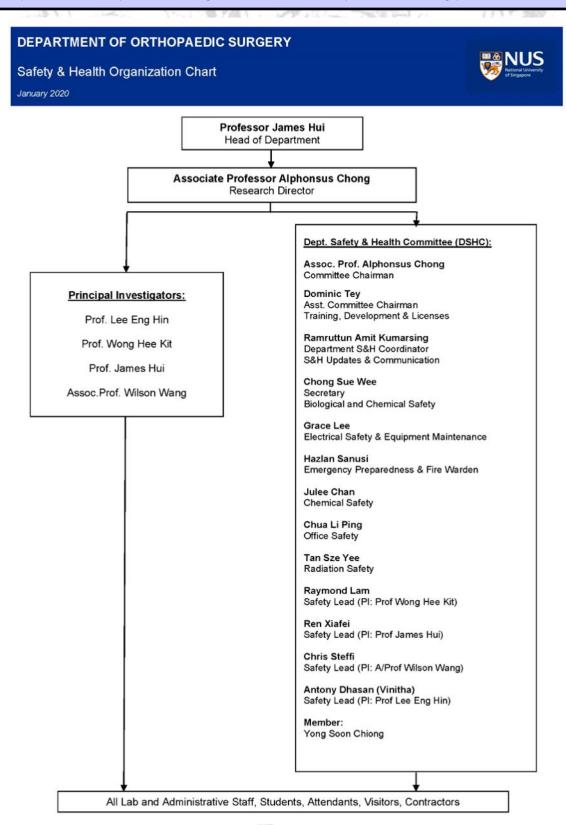
#### 2020 DEPARTMENT SAFETY & HEALTH OBJECTIVES & PROGRAMME

	2020 Department Safety & Health Mission					
1	To achieve zero reportable accident/incident which result in high impact incident such as those:  A. Subjected to Committee of Inquiry  B. Resulting in punitive measures by regulator  C. Resulting in financial loss > \$1 million	2	Proactively promote S&H and addressing S&H issues in the department			
	2020 Department	Safety	& Health	Objectiv	es	
	Objectives	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Current Status/ Remarks
1	To prioritize, address and close audit findings from the NUSSHA 2020 audit conducted in 2019		✓			Ongoing
2	To organize and conduct at least one safety inspection programme to ensure compliance and minimize recurrence of past findings.					Ongoing
3	To streamline and communicate the tracking process of identified DSHMS elements from the audit findings on a quarterly basis		✓			Ongoing
4	To promote safety & health in the department by organizing and participating in at least 1 S&H activity in 2020	✓				Ongoing

#### 2020 Department Safety & Health Programme Current Programme Responsible 1st Quarter 2nd Quarter 3rd Quarter 4th Quarter Status/ Remarks Safety Awareness & Participation - DSHC & Department Programme: Organize at least 1 safety, Research Admin - DSHC & - DSHC & Safety & health & wellness activity to serve as an Meeting (12/02) Research Admin Research Health **Ongoing** avenue to raise awareness of safety, - In-house spill Meeting (29/05) Admin Meeting Committee training and total health and wellness for response safety (04/09)(DSHC) staff & students video screening Emergency Response & Preparedness Programme: To conduct emergency - Spill Response response exercises to familiarize staff & DSHC Exercise (13/02) students with emergency procedures not & Safety **Ongoing** - MD11 Fire Drill limited to: Leads (18/02)a) Internal Fire Evacuation Drill b) Chemical & Biological Spill training Safety Inspection Programme: Conduct Internal safety inspection 3 DSHC **Ongoing** workplace safety inspections once a year (Sept-Oct) Audit Programme: To prioritize, implement the corrective measures and close the DSHC Audit Findings corrective measures in progress **Ongoing** NUSSA audit findings Review workplace safety performance once Head of **Ongoing** a year to ensure continual improvement Department Training Programme: Workplace safety Safety lead Dept Induction & Dept Induction & lead to conduct safety induction training to & Safety Quiz (16/01 & **Ongoing** Quiz (01/06) new staff and students Coordinator 03/02)

#### **DEPARTMENT SAFETY & HEALTH ORGANISATION CHART (JANUARY 2020)**

With the official announcement of the new Head of Department (HOD), Prof Hui Hoi Po, James, in January 2020, the Department Safety & Health Organisation Chart was updated accordingly.



# 1st DEPARTMENT SAFETY & HEALTH COMMITTEE MEETING & SAFETY ACTIVITY FOR 2020 (FEBRUARY 2020)

- To kick start the year of 2020, the first Department Safety & Health Committee and Research Admin meetings were organized and conducted.
- The Research Admin Meeting is also a platform to introduce new research staff and students and help them familiarize with the department.
- The first safety activity related to COVID-19 pandemic emergency safety videos (in-house as well as NUS shared videos) followed after the Research Admin Meeting.



# Safety Activity (Video Screening)

- NUS Proper Hand Washing Video (https:// emergency.nus.edu.sg/ videos.html)
- NUS Taking Off PPE Video
- In-House Spill Cleanup Safety Video



From left to right, Daryl Lin Jimian, Dr Zhang Shipin and Zhang Yanan, Prof Lee's Research Assistant, Research Fellow and Graduate Exchange Student respectively introduced themselves during the meeting.

#### CHEMICAL SPILL RESPONSE EXERCISE (FEBRUARY 2020)

To improve the in-house spill response training and help the new staff and student acclimatize to their lab procedures in handling spill, the spill exercise was, hence, conducted in their respective lab area. Their most hazardous biological and chemicals real-life spill scenarios were simulated and the training on the cleaning procedures by the department spill responders was successfully completed.





- Alert others & put

spill warning signage







- Surround the spill using absorbent pad.
- Dispose broken bottle into sharp box using a tong



- Removal of contaminated PPE after cleanup - Disposal of waste & labelling of
- chemical waste as per lab SOP



- Final clean up to ensure that no residual chemical is left behind



If no neutralizer is required, use a tong and absorbent pad to absorb the chemical



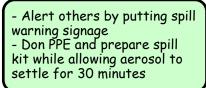
File report through AIMS

#### **BIOLOGICAL SPILL RESPONSE EXERCISE (FEBRUARY 2020)**











Surround the spill using absorbent pad or tissue



- Pour disinfectant solution from outer edge and inwards & allow disinfectant to settle for 30 minutes





- Final Cleanup and disposal of contaminated waste into the biohazard bag



Use tongs to clean up spill



- Removal of contaminated PPE after cleanup and disposal of contaminated biohazard waste as per lab SOP



### MD11 INTERNAL FIRE EVACUATION DRILL (FEBRUARY 2020)



### NUS SAFETY & HEALTH AWARD (NUSSHA)(MARCH 2020)



**Congratulations to everyone for your hardwork In maintaining a safe working environment & culture in the department !!** 

### **NUSMED CHEMICAL LABELLING PROJECT (JUNE 2020)**

The NUSMed colour-coding system has been established to achieve a uniform colour-coding system for proper storage of licensed chemicals.

NUSMed approach our department in order to request our participation in order to assess the effectiveness of the colour-coding system.

Type of Licenced Chemicals*	Colours	Labels
Chemical Weapon Convention Chemicals	Yellow	cwc /
Controlled Drugs	Purple	
Explosive Precursors	Blue	
Poisons	Orange	<b>6</b>

<sup>&</sup>quot;Licenced chemicals (i.e. CWC chemicals, poisons, explosive precursors and controlled drugs) shall be kept under lock and key." OSHE Laboratory Chemical Safety Manual Pg58

The type of licensed chemicals and its corresponding colour labels to be used

Even though it was not mandatory to participate in the project, our department Principal Investigator research groups namely Prof EH Lee, Prof James Hui, Prof Wong Hee Kit & Dr Dennis Hey through their safety leads were keen to provide their support to the project.

They embarked on a trial for 3 months. The participating laboratories were expected to complete the following surveys:

- Pre-Trial Survey by 6 July 2020
- Post-Trial Survey upon completion of trial

The labels were given to the respective safely leads by the Research Facility Management office representative.

#### **NUS COVID-19 PANDEMIC SAFETY MEASURES**

All the department labs and offices as well as common shared areas such as pantries must follow the Safe Distancing Guide.

NUS

#### <u>COVID-19: MANDATORY</u> USE OF NUSAFE APP ON CAMPUS

Based on the latest OHR
Circular (OHR 2020/064 on 27 August 2020), it is mandatory to use the App
(uNivUS app as well as use of NUSafe) when on campus and to show the green pass or "Safety Profile Screen" for the following:

- a. In-person classes. attend class;
- b. Purchase of food and drinks at canteens and food outlets;
- c. Internal shuttle services; and
- d. Sports, recreation and performing arts facilities on campus.

5 self-sufficient zones have been created on NUS campuses. Each zone has its own dining and study areas. The spirit of zoning is to minimize mingling and cross zone infection. If work exigencies need you to cross zones, you will need to seek approval from your Head Of Department.

### Safe Distancing Guide

#### **Dining Spaces**

Applies to cafés, food courts and canteens



"Up to five people from the same work/study zone per group

#### Study and Work Spaces

Applies to laboratories, students' areas, seminar/tutorial rooms and lecture theatres



#### Queuing

In dining spaces, co-op stores, printing services, bus stops\*

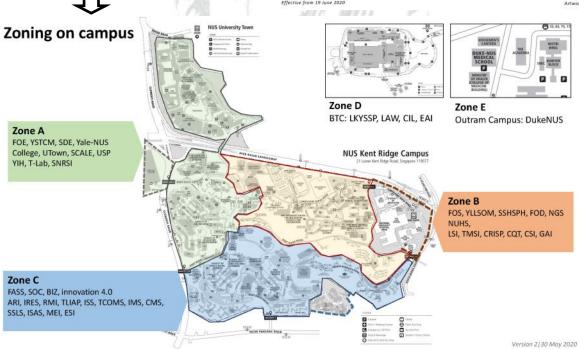


\*list is not exhaustive

Mysoul University Campus Infrastructure

Office of Safety, Health and Environment University Campus Infrastructure

Do Your Part, Keep Everyone Safe! Artwork designed by Freepik



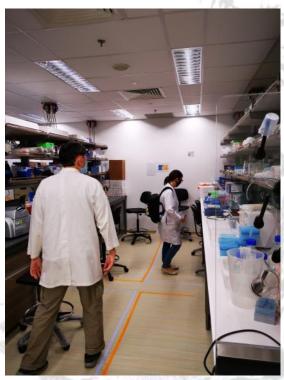
## NUS COVID-19 PANDEMIC SAFETY MEASURES (CONT): DEPARTMENT SAFE MANAGEMENT MEASURES & INSPECTION

As part of implementation of Safe Management Measures due to the COVID-19 Pandemic situation, our department has appointed the following Safety Management Officers (SMO) below. They helped to conduct regular inspections (once every fortnight) of the workplace and ensure compliance as per NUS standards, guidelines and advisories.

<b>Location</b> (Building / Level / Core)	Work Schedule	Names of Appointed SMO
NUHS Tower Block / Level 11	Blue Team	Chua Li Ping
Orthopaedic Diagnostic Centre (ODC), L3, NUH MB	Blue Team	Grace Lee Siok Moi
NUHS Tower Block / Level 11	Orange Team	Sarojeni Shanmugam
MD11 / B1	Blue Team	Hazlan Bin Sanusi
MD11/B1	Orange Team	Ramruttun Amit Kumarsing
NUSTEP, DSO Building Level 4	Research Shift	Vinitha Antony Dhasan Josphin Denslin / Dr. Yang Zheng

NUS staff situated at NUHS Tower Block Level 11 (Orthopaedic Surgery) and NUH Main Building Level 3 (Orthopaedic Diagnostic Centre) are to follow the Safe Management Measures implemented by NUH.

### Safety Management Measures (SMM) Inspection by OSHE



Inspection of MD11, # B1 by OSHE Safety Officer Christine Hu Zhi-Wen on 24th July 2020



Lab area is properly demarcated and segregated based on the distancing requirement of at least 1 meter

### **SPECIAL WELLNESS FOCUS:** WELLBEING DURING THE COVID-19 PANDEMIC

#### BEING PREPARED FOR A PANDEMIC



A pandemic is an outbreak resulting in the spread of an infectious disease worldwide. It usually occurs when the whole population has no immunity to the disease, which is more common when there have been no cases in the community before. Pandemics can be caused by different diseases, ranging from the mild to the very severe.

#### **CORONAVIRUS**

Coronaviruses are a large family of viruses which may cause illness in animals or humans. In humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases

COVID-19 is the infectious disease caused by the most recently discovered coronavirus.

announced the extension of Singapore's circuit

when Prime Minister Lee Hsien Loong

breaker measures till June 1 ......

#### ACHIEVE HEALTHY LIFESTYLE

According to Harvard Medical School's Health Publishing, these are a few Healthy ways to strengthen your immune system

- Don't smoke.
- Eat a diet high in fruits and vegetables.
- Exercise regularly.
- Maintain a healthy weight.
- If you drink alcohol, drink only in moderation.
- Get adequate sleep.

Take steps to avoid infection, such as washing your hands frequently and cooking meats thoroughly.

Try to minimize stress.









(A) World Hea Organizati

<u>Reference:</u>
https://www.herbazest.com/wellness-articles/10-facts-aboutmedicinal-herbs-and-prescription-drugs

https://www.health.harvard.edu/staying-healthy/how-to-boostyour-immune-system

https://www.moh.gov.sg

https://www.who.int/health-topics/coronavirus



Fun Quiz:

What is the one thing that many people missed during the second phase of CB? (clue: something we do not need, but just want to drink)



### **SPECIAL WELLNESS FOCUS (CONT):** WELLBEING DURING THE CIRCUIT BREAKER

#### 10 Ways to Achieve Mental Wellness during Circuit Breaker

- Get at least eight hours of sleep a day.
- 2. Eat a healthy diet. Foods rich in omega-3 fatty acids, such as salmon, tuna and mackerel, cut the risk of dementia and mental decline.
- Keep yourself active. At least 30 minutes of exercise, three 3. times a week, is ideal.

  Interact with others. Talk to another person for at least 10
- 4. minutes daily.
- Pick up a new skill or hobby.
  Get a mental workout. Scrabble or mahjong anyone?
- Do something for others. This is the best remedy when you're feeling down
- Learn to manage stress. Shift your mindset and make a list. Avoid alcohol, cigarettes and drugs. They are not the solutions 9. to problems.
- Laughter is the best medicine.

#### DECLUTTER YOUR MIND

Have you ever noticed how much clearer and focused your mind is when it is not cluttered? A cluttered mind is restless and unfocused. It can mean your vision is clouded, as your mind is moving in different directions at once, adding to your stress level when very little gets done.



Grapefruit with certain statins, it can







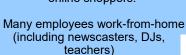


Helpful





88% of Singaporeans have bought something online during this period, even furniture saw some first-time online shoppers.



Musicals and concerts and art exhibitions go online.





Zoom

Do you

recognise any of these logos?



Download the HealthHub app on Google Play or Apple Store to access more health and wellness advice at your fingertips.









#### Good Reads:

https://www.healthhub.sq/live-healthy/959/declutter-for-bettermental-health

https://www.straitstimes.com/singapore/this-is-the-way-we-break -the-circuit

https://www.healthxchange.sg/wellness/mental-health/ten-waysachieve-mental-wellness

https://www.ipsos.com/en-sq/singaporeans-life-new-normal-covid-

http://www.nus.edu.sq/osa/resources/covid-19/7-pitstop-tips

#### WHERE TO SEEK HELP?

If you are experiencing persistent low mood, anxiety attacks, sleep disturbance and/or instability, please seek help from:

- 24 hr NUS Lifeline: 6516 7777
- University Counselling Services: 6516 2376
- Student Wellness: OSAcares@nus.edu.sg
- E-Counselling for Youths: eC2.sg
- Samaritans of Singapore (SOS) 24 hr: 1800-221 4444
- Community Health Assessment Team (CHAT): 6493 6500, CHAT@mentalhealth.sg

# HIGHLIGHTS OF NUS/OSHE SAFETY & HEALTH NEWS (JANUARY - JUNE 2020)

#### <u>Handover of NUS Medicine HBRA</u> Matters to NUHS Research Office

 All NUS Medicine HBRA matters have been handed over to NUHS Research Office and the new contacts are as follows:

Contact Person	Contact Number	Email
Ms Jacqueline Chen	6772 5962	Jacqueline_chen@nuhs.edu.sg
Dr Goh Li Hui	6772 3718	Li_hui_goh@nuhs.edu.sg
Dr Sankari Ramanatha	6772 6545	Sankari_ramanathan@nuhs.edu.sg

#### <u>Vent Opening of Flammable Safety</u> Cabinets

• FSC vent openings shall be sealed with appropriate bungs when not ventilated.



### **Update of Radiation Licenses**

- The changes in the procedure for renewal of N2 licences via GoBusiness Licensing include the following:
  - Expiry date in N2 licences will be removed and replaced with anniversary date.
  - The licence will not be re-issued upon the payment of the annual fee except when the licence is amended.
  - All N2 licences will only have a licence validity period of 1 year.
  - Fees payable for N2 licence:



### <u>Closure of RFM Backup Freezers/</u> <u>Fridges</u>

 Researchers are advised to source for alternate backup facilities in lieu of the disposal of RFM old freezers/ fridges.

#### NUS Medicine Safety Day 2020

 In view of the COVID-19 situation, NUS Medicine Safety Day 2020 has been cancelled.

#### NUSSHA 2020 Award Results

• The NUSSHA 2020 Award results and congratulations were extended to the winning Departments under NUSMed as shown below:



#### Mobile App for Reporting Incidents

 OSHE has launched a mobile app "SpheraCloud Mobile App" for reporting of workplace safety incidents and safety concerns. For more advise and any enquiries, please contact ehs360@nus.edu.sq

### <u>Updated URL for Occupational Health</u> Programme Website

 The new URL for the Occupational Health Programme webpage, <a href="https://inetapps.nus.edu.sg/osh/portal/NUS-Community/oh/intro.html">https://inetapps.nus.edu.sg/osh/portal/NUS-Community/oh/intro.html</a>

#### Changes to OSHE Class Trainings

OSHE Course	Changes with Effect from 1 Jan 2020
Risk Management for Laboratories and General Workplaces	No classroom training available     Faculty S&H Officer to provide training to new S&H Coordinators
Internal Auditor Workshop	- Online training module
Biological Spill and Emergency Response (Hands-on) https://mysen.na.edu.ac/44306/Membrant/ac/ booksen/MONDE/MICRespond-66233	Conducted by OSHE annually     Restricted to S&H Coordinators only
Chemical Spill Response (Hands-on) as ilmates no edu sa 443CoEV/sesSvert/se cont/0EV/SVEV/SVERT de sest/D-96524	Conducted by OSHE annually     Restricted to S&H Coordinators only

#### **Business Continuity Plan**

• The Dept. research labs were reminded to submit Business Continuity Plan, if any, by Monday, 31 August 2020.

# HIGHLIGHTS OF NUS/OSHE SAFETY & HEALTH NEWS (CONT) (JANUARY - JUNE 2020)

#### <u>Fire Evacuation after Office Hours</u> <u>and during Wet Weather</u>

- According to OSHE requirement (via email consultation with Mr Adam Wong Kwok Yew, Manager of OSHE Emergency Management Division), building occupants are required to proceed to the assembly area (AA) during emergencies after office hours. A roll call is not required after office hours but an internal SOP should be put in place to account for office/laboratory staff after the evacuation. The Building Manager/Office of Campus Security should be informed of the status.
- For evacuation during wet weather, occupants may proceed to the general direction of the AA and be housed in buildings around it (e.g. Science canteen, S15 and S17) for shelter and a roll call has to be conducted.

#### <u>Update of Licence/ Permit Request</u> <u>for Purchase of Regulated Chemicals</u> <u>@ NUS Medicine</u>

- The current workflow for requesting licence/ permit to purchase regulated chemicals had been updated with the implementation of LMPRS.
- For chemicals purchased via LMPRS, requestors may forward the vendor email requesting for the licence/ permit to medbox81@nus.edu.sq.
- For chemicals purchased outside LMPRS, requestors are required to submit the licence/ permit request at https:// nusmedicine.nus.edu.sq/safety.
- The above are applicable for requests of:
  - Explosive Precursors Licences (Storage & Possession/ Control);
  - Hazardous Substances Permit (Storage & Usage); and
  - Petroleum & Flammable Materials Licence (Storage).

## NUS Medicine Colour-Coding System for Storage of Licensed Chemicals

 To achieve a uniform colour-coding system for proper storage of licensed chemicals, a NUS Medicine colour-coding system has been established. The type of licensed chemicals and the corresponding colour to be used are listed in the table below:

Type of Licensed Chemicals*	Colour
Chemical Weapon Convention	Yellow
Chemicals	
Controlled Drugs	Purple
Explosive Precursors	Blue
Poisons	Orange

\* "Licenced chemicals (i.e. CWC chemicals, poisons, explosive precursors and controlled drugs) shall be kept under lock and key." OSHE Laboratory Chemical Safety Manual Pg58.

### BSL2+ Laboratory for Inactivated COVID-19 Work @ MD11 Level 4

- A BSL2+ laboratory designated for research work with inactivated COVID-19 samples was set up in MD11.
- There were multiple levels of approvals and strict checkpoints by both the authorities and University for research project applications and BSL2+ laboratory setup. The requirements were stated in OSHE circular 2020/11 and research laboratories interested to work with COVID-19 can refer to it for further details.

### <u>Safety Support for NUS Medicine</u> <u>COVID-19 Response</u>

- In response to the COVID-19 situation, NUS Medicine implemented a number of measures, mainly:
  - Temperature monitoring station at MD6;
  - Thermometers distribution to NUS Medicine departments;
  - Guidelines for NUSMed research labs; and
  - BSL2+ facility setup for inactivated COVID-19 research.

# HIGHLIGHTS OF NUS/OSHE SAFETY & HEALTH NEWS (CONT) (JANUARY - JUNE 2020)

### NUS Medicine Accidents/ Incidents Sharing

/				
	DESCRIPTION	POSSIBLE CAUSE	LESSONS LEARNT	
	A research fellow injured her wrist tendon supporting the door of a CO2 incubator after the hinges gave way. She was given one-day MC and was advised to wear a wrist guard for at least five days	The incubator was more than 10 years old and the bottom hinge was worn off by friction	The laboratory was advised to visually check equipment for any wear and tear.	
	An Operations Associate sustained a cut and a small prick on her thumb and ankle, respectively while washing a 1L glass bottle	The glass bottle slipped off the staff's hand, hit the sink and broke into pieces	The staff was advised to use glassware washer to clean all bottles and flasks, and to wear safety glasses and thick rubber gloves when putting and removing glassware from the machine.	
	A Research Assistant accidentally pricked himself on his right thumb with a butterfly needle when he was placing it into a sharps box after drawing blood from a healthy subject	Improper handling of nee- dle and sharps	The staff was advised to look into a safer alternative of butterfly needle, e.g. vacutainer with safety-lock.	
	A FYP student was uncapping a clean sharp 18G needle to break up cells for an enzyme purification experiment. Her hand recoiled after uncapping the tightly capped needle and pricked herself on the right index finger	Improper handling tech- nique of needle and suita- bility of needle to do the procedure	The student was advised to use the twist and turn method to uncap a needle since using a blunt-end needle is unsuitable for this procedure, yielding significantly lower amounts of purified enzyme in her experience	



