Advancing Dermatological Care
CORPORATE REVIEW 2019

Secondary Colour 2: C71     M63     Y49     K34
Secondary Colour 3: C65     M55    Y40     K15
Primary Colour: C0     M68     Y35     K0
MISSION OF NSC
To improve and advance the skin health of the population by setting the highest standard of excellence in dermatological care, education and research.

VISION
To be a beacon for world-class dermatological care, research and education, a centre of choice for our patients, staff and partners in advancing skin health for current and future generations.

PATIENTS
We treat patients with respect and dignity and provide them with a comprehensive range of dermatological care that is up-to-date, high in quality and cost-effective. We provide expert management of complex skin diseases and achieve best valued-based outcomes.

STAFF
We create an organisation that is anchored by a deep sense of purpose and has a progressive, inspiring, trusting and collaborative work environment that we are proud to work in.

PARTNERS
We engage our partners proactively in a positive synergistic, collegial relationship, ensuring a win-win outcome, in an empowering, innovative and sustainable environment.

STEWARDS
We optimise our resources to provide value-driven dermatology services at the tertiary level, leveraging on partnerships to provide care beyond the hospital to community and build a centre of excellence in education and research to improve health outcomes.

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Board and Key Committees 2019

MDM KAY KUOK  
Chairman, NSC Board  
Chairman, National Healthcare Group

PROF PHILIP CHOO  
Director, NSC Board  
GCEO, National Healthcare Group

1. MR LAWRENCE QUEK  
Support Services Senior Manager

2. MR ERIC GOH  
Quality Manager

3. A/PROF CHUA SZE HON  
Deputy Director

4. MR JOHNNY FOO  
Clinic Operations Manager

5. PROF TAN SUAT HOON  
Director

6. MS LOO SWEE CHENG  
General Manager

7. MS BRENDA LIM  
Head of Nursing

8. MRS TANG LEE FOON  
Head of Pharmacy

9. MS THERESA SOON  
Department of STI Control (DSC) Manager

10. MR LEE SAU CHUEN  
Laboratory Manager

11. MR KOH TECK CHEE  
Head of Human Resource and Medical Affairs

Leadership

Management Committee

1. ASSOC PROF STEVEN THING  
Deputy Head of Medical Education Division, Senior Consultant

2. ADJ A/PROF MARTIN CHIO  
Head of Department of Sexually Transmitted Infections Control (DSC) Clinic, Senior Consultant

3. ADJ A/PROF CHONG WEI SHENG  
Head of Subspecialty Division 1, Senior Consultant

4. MS LOO SWEE CHENG  
General Manager, Ex-Officio

5. PROF TAN SUAT HOON  
Director

6. ADJ A/PROF LIM YEN LOO  
Head of Subspecialty Division 2, Senior Consultant

7. ADJ A/PROF TEY HONG LIANG  
Head of Research Division, Senior Consultant

8. A/PROF CHUA SZE HON  
Deputy Director & Head of Medical Education Division, Senior Consultant

9. ADJ A/PROF LEOW YUNG HIAN  
Head of Clinical Governance and Quality, Senior Consultant
2019 was a year of reflection for National Skin Centre (NSC) as we took stock of how the centre could do better, while preparing for our next lap in providing excellent dermatological care at the new building. NSC renewed its vision and mission statements to emphasize on providing quality dermatology care for the nation, while optimising resources to build a centre of excellence in education and research to advance healthcare outcomes for the population.

Eczema remains our biggest disease burden, accounting for 30% of our new patients every year. There has been much local epidemiologic research on Atopic Dermatitis, which affects 20% of children and 10% of adult population. NSC attained the successful accreditation of the centre as Singapore’s GA²LEN Atopic Dermatitis Referral and Excellence Centre, signifying our commitment to dermatological excellence. Made possible by the hard work and dedication of staff, the certification awarded by the European Network for AD excellence will continue to walk this journey of continuing development and transformation for NSC, we thank all staff and our partners for their hard work, contribution and commitment over the past years. As we move into a new phase of growth and well-being.

I would like to extend my deepest appreciation to all staff and our partners for their hard work, contribution and commitment over the past years. We are exceedingly proud of our staff who have demonstrated leadership and delivered the highest standard of care to patients, both within and outside of NSC. It is without doubt that we will not fully return to what we use to do and what we were used to doing, but with adversity comes adaptation and new opportunities. This is a time for NSC to prepare and adapt to a post-COVID era to overcome new challenges with care innovation.

Looking ahead, I am confident that NSC will continue to evolve and provide a higher level of person-centred, value-based care, as we strive to achieve optimal outcomes for their health and well-being.

NSC’s continued efforts in transforming dermatological care extend beyond its immediate facility. The Centre enhanced collaboration with healthcare partners to provide holistic care in the community, which includes knowledge and skills transfer to nursing staff and the use of tele-dermatology to reduce the need for frail patients from nursing homes to visit NSC. This holistic approach reduces potential risks of infection and injuries to frail residents during transportation for physical visits while minimising transportation costs and manpower.

NSC also introduced the Skin Aid for the Vulnerable and Elderly (SAVE) programme for patients with extensive dermatosis who need intensive topical treatment. SSAVE aims to prevent unnecessary frequent re-admissions into acute care hospitals by supporting patients with chronic relapsing skin diseases clinically and socially with regular application of topical medications as a day treatment at the centre.

NSC’s clinician scientists continue to spearhead translational skin research, with the appointment of NSC as the main study site in Singapore for the study of novel emerging Atopic Dermatitis (AD) therapies. This enables the Centre to investigate different treatments for therapeutic possibilities, translating to better care and improved clinical outcome for patients. In the research area of skin imaging, great strides were made by the NSC research team with the use of non-invasive in vivo Optical Coherence Tomography to identify the mechanism of individuals who suffer from the inability to sweat (Hypohidrosis). This discovery has enabled effective and curative treatment options for this potentially fatal condition.

The resilience of staff over the years has given NSC the confidence to weather challenges in Singapore’s healthcare landscape. With the emergence of the COVID-19 disease in Singapore and the rest of the world, NSC staff stepped up to meet the nation’s needs to manage the evolving COVID-19 situation. Staff were deployed across COVID-19 care facilities and provided exemplary care at the frontlines. We are exceedingly proud of our staff who have demonstrated leadership and delivered the highest standard of care to patients, both within and outside of NSC. It is without doubt that we will not fully return to what we use to do and what we were used to doing, but with adversity comes adaptation and new opportunities. This is a time for NSC to prepare and adapt to a post-COVID era to overcome new challenges with care innovation.

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Waiting time has improved significantly in the clinics with less patients waiting more than 60 days for their first appointment. With a person-centred approach, various measures such as the implementation of the tele-dermatology collaboration with the NHGP and NUP polyclinics and evening clinics helped to manage the inflow of patients to the centre. An increased network of shared care partners established through upskilling of primary care practitioners helped to facilitate the discharge of chronic stable patients to GP partners and polyclinics, enabling NSC to increase its access to new patients.
With ongoing efforts to deliver patient-centre care, NSC continues to seek advancement in dermatological care services, with the aim of providing value-add to patients’ well-being through improved care delivery.
NSC Certified as Centre of Excellence in the European Network for Atopic Dermatitis Care

In recognition of dermatological excellence, National Skin Centre was successfully accredited as Singapore's GA²LEN Atopic Dermatitis Referral and Excellence Centre (ADCARE) on 4 July 2019 by Professor Torsten Zuberbier, Head of the Allergy Centre-Charité at the Department of Dermatology and Allergy Center at the Charité - Universitätsmedizin Berlin.

NSC fulfilled the certification criteria for GA²LEN ADCARE assessed during an audit visit. The requirements were based on international benchmarks as follows: i) Infrastructure and set up, ii) Management, iii) Research, iv) Education and v) Advocacy. These include having an outpatient clinic with separate clinic hours for atopic dermatitis patients headed by an expert, having a team of dedicated staff with specific atopic dermatitis training, having a multidisciplinary approach in order to interact with other specialties for the management of comorbidities, the treatment of patients with differential diagnoses and to perform extended diagnostics, as well as conducting clinical trials, educational activities and increasing awareness and knowledge of atopic dermatitis, among others on the requirement list. NSC’s wealth of expertise in atopic dermatitis care has improved the care for patients and advanced treatment options through research endeavours.

The certification of NSC as Singapore’s GA²LEN Atopic Dermatitis Referral and Excellence Centre (ADCARE) paves the way for greater collaboration on treatment for atopic dermatitis, and has been an effective platform for knowledge exchange amongst clinicians.

Wait Times Reduced at NSC Clinics

With conscious efforts taken in managing patients’ waiting time at NSC clinics, both subsidised and private clinics saw a reduction in new appointment waiting time by the end of January 2020, enhancing the accessibility to quality care for patients.

The following actions had been taken with effect from 14 May 2019 to improve the waiting time:

- Reinstated evening clinics for new subsidised referrals as a temporary measure to alleviate any anxiety from patients

- Continued engagement and collaboration with National Healthcare Group Polyclinics (NHGP) to empower polyclinic doctors with dermatology knowledge to take on the management of routine cases instead of referring patients to NSC

- Implementation of teleconsultation sessions with selected nursing homes for bed-bound patients so as to relieve room resource and prolonged consultation time taken by our attending doctors

- Introduction of triaging by dermatologists for new referrals in order to expedite any urgent requests for medical attention to maintain accessibility to care

- Extended the right-siting programme by offering selected patients for teleconsultation with the aim of saving patients a trip back to NSC for physical consultation reviews

Management of Frail Patients – Nursing Home and Home-based Patients

Redevelopment works taking place at NSC for the new building has resulted in limited accessibility for frail patients to NSC’s current premises.

With the aim to provide improved care in a holistic manner by simplifying patient flow, and to facilitate ease of access, two holding rooms were designated as consultation rooms for frail patients at the basement of the existing building. Care is also being provided in the garden area for the patient to be seen by the doctor/nurse/pharmacist at the basement. A simple refinement of workflow can lead to an enhanced care experience when living with frailty for the patient and caregiver.

Care Innovation at NSC’s Pharmacy

Increase in Compounding and Repacking Activities

Compounding and repacking activities in the NSC Pharmacy’s compounding laboratory translated to cost savings for patients with the resumption of in-house compounding of fluocinolone creams to better manage their shelf lives. Where large scale manufacturing by the outsourced contract manufacturer had produced a single big batch with one expiry date, the pharmacy’s just in time self-compounding allowed each small batch to be used within their expiry dates, while keeping to the medication’s effectiveness.

Magic Mouthwash

Patients diagnosed with Pemphigus Vulgaris develop multiple oral lesions that may be painful. To ease their discomfort, the ‘Hydrocortisone, Nystatin, Diphenhydramine, Tetracycline’ (HNDT) medicated mouthwash was introduced in 2015 and prescribed to such patients. This mouthwash helps to reduce inflammation, numb the pain and prevent opportunistic infections in the orol cavity.

Due to the HNDT medicated mouthwash’s short shelf life of two weeks, after compounding, the pharmacy at NSC was unable to prepare buffer stock for immediate fill of prescriptions, resulting in patients needing to come back another day to collect. In addition, many freshly compounded preparations ended up as uncollected by patients who were no-shows for various reasons, resulting in wastage of the pharmacy technician’s time, effort and raw materials used.

Between 2017 and 2018, NSC pharmacy collaborated with the National University of Singapore (NUS) Pharmacy school to successfully improve the formulation of the ‘magic mouthwash’ formula, prescribed for pemphigoid patients for mouth ulcers. This was done using doxycycline in place of tetracycline for a longer shelf life. Repackaged as separate ingredients, this allowed patients to self-compound as needed, to save them travelling time and costs to collect the compounded mouthwash every 2 weeks. The new sugarless mouthwash also has a lower risk of tooth decay as compared to the old syrup base.

Improved ‘Magic Mouthwash’ Formula

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“Care innovation can be materialised with continuing efforts of collaboration across professions”

of this project, worked alongside professors and undergraduate students to improve the shelf life of the mouthwash.

The reformulation explorations to improve the shelf life resulted in replacement of tetracycline by the more stable doxycycline. Winnie added a further element by converting the preparation into a self-reconstitution liquid, to allow for patients to be prepared at home by patients only as and when they need, which also saved them travel time and costs to return regularly to NSC to collect freshly prepared mouthwash.

Not stopping there, Winnie next addressed the suspending agent in the formula. The original formula used ‘Simple Syrup’, as the suspending agent to thicken the mouthwash’s consistency, and to mask the taste of the active ingredients. However, due to the syrup’s high sugar content, this was not ideal for patients’ dental health if they continued to use this mouthwash for the long term. Winnie sourced for a sugar-free orange flavoured oral suspending agent, which was compatible with the active ingredients, and introduced this in early 2020 in the improved version of the formula.

The success of reformulating and improving the now renamed HNDT medicated mouthwash has spurred Winnie on. She diligently continues to monitor any unmet medical needs that can be addressed within her capabilities. Winnie expresses, “I am appreciative of our doctors who reach out to let me know actual unmet needs on the ground, and look to work together to find solutions. I think actual care innovation can be materialised with continuing efforts of collaboration across professions.”
Providing Person-centred Care

As a value-added service to provide more holistic person-centred care for patients, NSC collaborated with Tan Tock Seng Hospital (TTSH), for the DMDvascular Clinical Trial. Patients/members of the public who have BMI>23kg/m², family history of diabetes, previous gestational diabetes or recent diagnosis of diabetes but not on medication, were eligible. On confirmation of suspected diabetes, patients were referred to TTSH’s Endocrine clinic for treatment. Over 6 months, 11 patients were recruited in the trial and were referred to TTSH.

New Model of Community Dermatological Care for Frail Nursing Home Residents

To reduce medical visits of frail residents from nursing homes to National Skin Centre, a new model of community dermatological care was established. Frail and bedbound residents with stable bullous pemphigoid from nursing homes that had a service contract with NSC were right-sited to NSC’s dermatology nurse for continuity of care and treatment. 12 frail bed-bound residents who had previously required two monthly follow-up medical visit at National Skin Centre (NSC), were successfully provided with seamless care.

RESULTS:

Freeing up medical appointments at the Immunodermatology clinic

A reduction of 144 ambulance transfer trips

An overall savings of $19,080 by patients from the establishment of team-based care delivery between NSC and nursing homes

Enhanced Security of Patient Database — National STI Registry

The Department of STI Control (DSC) is appointed by the Ministry of Health (MOH) to oversee the national STI Registry and is responsible for collating, monitoring, and reporting of the national STI trends. Following the HIV data breach that affected 14,200 individuals diagnosed with the human immunodeficiency virus in January 2019, DSC reviewed and tightened its STI Registry processes to ensure data security. DSC has also appointed dedicated staff to handle the registry work, and streamlined the processes from April 2019 for rigorous surveillance of patient data.

SALVE Programme

To augment value-driven care, integration between National Centre for Infectious Diseases (NCID) and NSC is integral. The Skin Aid for the Vulnerable and Elderly or SALVE programme was introduced to support needy patients to receive daily dermatological care after being discharged from hospital and do not require institutional placement. As such, patients could seamlessly receive subsidised daily topical treatment in NSC upon discharge from NCID after receiving care by the Inpatient Dermatology Team (PDT), without the need to first be reviewed by a doctor at NSC. The programme also empowers nurses to perform daily skin-directed topical treatment as ordered by the doctor, and have the authority to taper down frequency of topical application based on clinical improvement.

The SALVE programme also comprises of an outpatient clinical care plan to minimise preventable re-admissions and healthcare costs. Customised for patients with dermatological conditions who respond well to skin-directed topical treatment but are unable to comply to treatment adequately, patients in the programme attend counselling and goal-setting sessions to encourage their independence in self-care.
Launch of Community Blueprint: Ending HIV Transmission and AIDS in Singapore by 2030

On 23 November 2019, the Community Blueprint to end HIV transmission and AIDS in Singapore by 2030 was launched by the Action for AIDS (AFA) along with other community organisations and key community groups. DSC is one of the key stakeholders that participated in the development of the Community Blueprint.

The blueprint examines the current state of the epidemic and the populations most at risk. It reviews the estimated size of each at-risk population, assesses the current gaps, as well as proposes strategies, programmes and resources to increase the reach to at-risk populations and close the gaps.

The community blueprint is a roadmap on what communities delivering HIV programmes and services feel needs to be done to end HIV in Singapore by 2030. It is envisioned to be a living document to be updated and refreshed as new information and strategies become available.

Patient Experience Survey 2019

The Patient Experience Survey (PES) 2019 aims to measure patients’ experience in Public Healthcare Institutions (PHIs) in the various settings – Inpatient, Emergency Department, Specialist Outpatient, Polyclinic, Community Hospitals.

The study assessed the level of patients’ experience in Public Healthcare Institutions in Singapore, and identified aprovide feedback to the institutions and MOH in order to enhance quality of healthcare services provided.

The 11 domains are Communication with Nurses, Communication with Doctors, Communication with Allied Health Professionals (AHPs), Communication with Counter Staff, Communication about Medicine, Empowerment/Care Transition, Waiting Time, Explanation of Estimated Bills, Team-Based Care, Overall Rating and Recommendation.

Patient Experience Survey 2019 Results

<table>
<thead>
<tr>
<th>NSC Composite Overall Score</th>
<th>91.7%</th>
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<tr>
<td>SOC National Score</td>
<td>91.5%</td>
</tr>
<tr>
<td>SOC NHG Overall Score</td>
<td>92%</td>
</tr>
</tbody>
</table>

NSC’s 2019 PES score is comparable to that of NSC’s 2018 PES Score, NHG and National 2019 PES Score. The Centre’s Best Practice Areas include Communication with AHPs, Communication about Medicine and Recommendation. Under the area of Clear Explanation by AHPs, there was an increase from 72.2% in 2018 to 100% in 2019. This means that 100% of respondents feel that AHPs would usually explain things in an understandable manner. NSC also performed well in the areas of Good Understanding of Schemes and Subsidies (2018: 93.9%, 2019: 99.1%) and Clear Explanation for Medicine (2018: 97.8%, 2019: 98.0%).

Patient Safety Culture Survey 2019

Patient safety is the extent to which shared beliefs, values and norms in the centre support and promote patient safety. Patient safety culture can be measured by determining what is rewarded, supported, expected and accepted. Here are the results of the CY2019 Patient Safety Culture survey in NSC that are signposts to improve patient safety:

- Respondents feel that there is a “proactive culture” at NSC where the management advocates for a caring and improvement-driven work environment. The organisation also practises just culture that supports effective learning.
- 90% of respondents feel that important patient care information is clearly communicated across areas in NSC.

PSC Survey Results

Areas of strength for NSC

- Organisational Learning: 81% of respondents reported that mistakes lead to positive change
- Management Support for Patient Safety: 76% of respondents reported that Management provides a climate that promote Patient Safety and shows that Patient Safety is a top priority
- Communication about Patient Information: 73% of respondents reported that key information is available and communicated well within NSC

Areas of potential improvement for NSC

- Staffing, Work Pressure & Pace: 41% of respondents indicated that there is sufficient staff to handle the workload
- Communication Openness: 60% of respondents reported that staff speak up freely when they see something unsafe, feel comfortable asking questions, and their suggestions are valued
- Staff Training: 64% of respondents indicated that they received adequate orientation, refresher and on-the-job training, and do not feel pressured to do tasks they are not trained to do
As the national tertiary academic centre for dermatological diseases in Singapore, NSC steers high-quality, clinically-relevant research to advance dermatological knowledge and impact clinical services.

Advancing Research & Care Innovation

Advancing Research with NSC’s Atopic Dermatitis Database

The NSC Atopic Dermatitis Database has been set up in November 2019 to collect biological materials and clinical data that are essential resources for the understanding of atopic dermatitis, especially in our multi-ethnic Asian population, through clinical, epidemiological and scientific studies. The clinical database with information harnessed over years enables the consolidation of high quality, comprehensive, longitudinal clinical data on the epidemiology, clinical features, management and outcome measures in atopic dermatitis. Biological material collected will allow us to perform genetic and laboratory-based research to understand underlying genetic risk factors and mechanistic pathways in atopic dermatitis. These efforts will establish key phenotype-genotype correlations, identify new genetic and laboratory biomarkers to prognosticate and guide treatment.

Progress in Research Studies

Research Area: Atopic Dermatitis

New studies initiated ranging from basic science, epidemiology to clinical studies were launched to advance knowledge in atopic dermatitis.

The bioimaging study to examine constituents of eczema skin and microphysical structure of eczema by newer imaging modalities Raman and Raster-Scanning-Optoacoustic Mesoscopy (RSOM) imaging has been completed. A total of two manuscripts have been accepted for publication in Journal of Dermatological Science.

The large scale population cohort study HELIOS by National Healthcare Group and Lee Kong Chian (LKC) School of Medicine has been progressing well. Interim results of the dermatology domain where risks and prognostic factors of atopic dermatitis among the Singapore adult population have been presented at various settings. Various advanced multi-array “omics” platforms are being used for analysis of disease biomarkers (e.g. proteins and skin microbiome).

The study on the immunological profiles among adult onset atopic dermatitis in a separate study collaborating with LKC School of Medicine has completed its laboratory analysis. It has undergone further bioinformatics analysis. Results were presented at the Singapore Health and Biomedical Congress 2019. The results of the study provided insights on how patients who developed eczema in their adulthood could have a distinct immunological profile from our usual understanding of eczema as a childhood skin disease. This is especially important to guide management in this current emerging era of targeted therapies. We are currently doing further analysis to compare with a second cohort of patients with early onset disease.

NSC as Main Study Site for Study of Novel Atopic Dermatitis Therapies

NSC has been chosen as the main study site in Singapore to study novel emerging atopic dermatitis therapies including various targeted biologics and oral small molecule therapies. These clinical trials are in various states of recruitment and are proceeding well. As a national centre, it is important for NSC to investigate different novel eczema treatments for therapeutic possibilities.
Research Area: Skin Imaging

Non-invasive in vivo Optical Coherence Tomography

The use of non-invasive in vivo Optical Coherence Tomography has allowed the NSC Research team to identify the mechanism of individuals who are not able to sweat (hydrotrophic). To date, the condition is idiopathic (no known cause/mechanism), has no effective treatment, and is incurable. The discovery has enabled effective and curative treatment for this potentially fatal condition to be instituted. A patent has been filed for this treatment approach, and a study conducted on the topic has been accepted for publication by the European Journal of Dermatology.

Raman Confocal Microscopy and High-resolution Raster Scanning Photoacoustic Mesoscopy in Patients with Atopic Dermatitis, Rosacea and Vascular Lesions

NSC has leveraged on the expertise of Professor Malini Olivo, Head of the Bio-Optical Imaging Group of the Singapore Bioimaging Consortium (SBIC), to further develop the use of Raman Confocal Microscopy and high-resolution raster scanning photoacoustic mesoscopy in patients with atopic dermatitis, rosacea and vascular lesions. In addition, NSC is planning to further develop the in vivo 3D imaging of non-melanoma skin cancer (NMSC) using photoacoustic imaging in collaboration with SBIC, by addressing shortcomings identified in the preliminary studies. It is hypothesised that developing imaging systems to accurately map out in vivo before surgery will improve surgical outcomes along the way. As the Assistant Manager, there will always be learning opportunities along the way. Despite the failures and frustrations, there will always be learning opportunities along the way.

Ultimately, one needs to remember that the journey is often as important as the destination. Despite the difficulties, there will always be learning opportunities along the way. As the Assistant Manager of our Research Department, Ms. Veron Lu, says, “Don’t be discouraged when people around you keep telling you something cannot be done – your curiosity and passion will help find a way.”

Research Publications in FY2019

<table>
<thead>
<tr>
<th>NO</th>
<th>TITLE</th>
<th>DOCTORS</th>
<th>PUBLICATIONS</th>
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<tbody>
<tr>
<td>1</td>
<td>Mapping of V67 T Cells Reveals V62+ T Cells Resistance to Senece</td>
<td>Xu Weili, Monaco Gianni, Eleanor Wong</td>
<td>EllioMedicine 2019 Jan;39:44-58</td>
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<td>2</td>
<td>Impact of a Pharmacy-led Smoking Cessation Clinic in a Dermatology Centre</td>
<td>Cheng Hui Mei, Liu Wen Chun, Germane Chua, Liew Choon Fong, Winnie Li, Winnie Choo, Hazel Oon HB</td>
<td>Singapore Medical Journal 2019 Jan;60(1):31-33</td>
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<td>4</td>
<td>Volumetric Multispectral Photoacoustic Tomography for 3-Dimensional Reconstruction of Skin Tumors: A Further Evaluation with Histopathologic Correlation</td>
<td>Chuhan Sai Yee, Attila ABE, Chris Ho JH, Li Xuting, Joyce Lee SS, Melissa Tan WP, Angeline Yong AN, Aaron Tan WM, Razansky Daniel, Oliver Malini, Steven Ting T</td>
<td>Journal of Investigative Dermatology 2019 Feb;149(2):481-485</td>
</tr>
<tr>
<td>5</td>
<td>Acitretin-Altered Squamous Cell Carcinoma: A Pitfall in Diagnosis</td>
<td>Koh Wei Liang, Hazel Oon HB, Tan Wee Ping</td>
<td>Dermatologic Surgery 2019 Feb;45(2):311-313</td>
</tr>
<tr>
<td>7</td>
<td>Idiopathic Generalized Exfoliative Dermatitis and Association with Antihypertensive Drugs and Statins: A Retrospective Case-Control Study</td>
<td>Cheong KW, Yew Yuk Weng, Teh Hong Liang</td>
<td>Dermatology 2019 Feb;235(2):107-111</td>
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<tr>
<td>9</td>
<td>Rethinking the Female Predominance in Hidradenitis Suppurativa</td>
<td>Ellie Choi CE, Nisha Chandran</td>
<td>International Journal of Dermatology 2019 Mar;58(3):e57-65</td>
</tr>
<tr>
<td>10</td>
<td>Spontaneous Cutaneous Adverse Drug Reaction Reports — An Analysis of a 10-year Dataset in Singapore</td>
<td>Wong Si Xian, Tham Mun Yee, Goh Chee Leok, Cheong Han Hui, Chan Sui Yung</td>
<td>Pharmacology Research &amp; Perspective 2019 Apr;72(o):e00469</td>
</tr>
</tbody>
</table>
Research Grants

Continuous support through grants from collaborating institutes enable NSC’s research team to develop projects with the aim of providing improved dermatological care for patients.

In FY2019, the following new inter-institutional and national grants were awarded to NSC:

<table>
<thead>
<tr>
<th>PROJECT TITLE</th>
<th>PRINCIPLE INVESTIGATOR</th>
<th>COLLABORATING INSTITUTES</th>
<th>NAME OF GRANT</th>
<th>GRANT PERIOD</th>
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</thead>
<tbody>
<tr>
<td>Transforming Patient Care Through Development of Non-invasive, In-vivo Bedside Skin Imaging Tools for Diagnosis, Classification and Delineation of Skin Cancer</td>
<td>A/Prof Steven Thng</td>
<td>SBIC, NTU</td>
<td>NMRC Clinician Scientist Award</td>
<td>Feb 2020 – Jan 2023</td>
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<tr>
<td>Pathophysiology of Itch in Psoriasis</td>
<td>Dr Harumi Ochi</td>
<td>Changi General Hospital</td>
<td>FY2019 NHG-LKCMedicine Clinician-Scientist Preparatory Programme (CSPP)</td>
<td>Jul 2019 – Aug 2020</td>
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<tr>
<td>Imaging Workflow for 3 Dimensional histology</td>
<td>Adj A/Prof Tey Hong Liang</td>
<td>A*STAR SiGN</td>
<td>Innovation to Protect (‘I2P’) Grant</td>
<td>Sep 2019 - Sep 2020</td>
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<tr>
<td>Targeting of Melanocytes for Delivering Therapeutics using Protein Nanocages Decorated with Multiple Ligands</td>
<td>A/Prof Steven Thng</td>
<td>NTU</td>
<td>Innovation to Protect (‘I2P’) Grant</td>
<td>Oct 2019 - Oct 2020</td>
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<tr>
<td>Alleviation of Procedure-related Pain using a Non-invasive Vibratory Device</td>
<td>Adj A/Prof Tey Hong Liang</td>
<td>NA</td>
<td>Innovation to Protect (‘I2P’) Grant</td>
<td>Mar 2020 - Mar 2021</td>
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<tr>
<td>Idiopathic / Primary Hypohidrosis: Pathogenesis and Treatment with Retinoids</td>
<td>Adj A/Prof Tey Hong Liang</td>
<td>NA</td>
<td>Innovation to Protect (‘I2P’) Grant</td>
<td>May 2019 - Nov 2019</td>
</tr>
<tr>
<td>Topical Anticholinergic and Antibacterial Formulation for the Treatment of Axillary Apocrine Bromhidrosis</td>
<td>Adj A/Prof Tey Hong Liang</td>
<td>Ms Winnie Choo</td>
<td>Innovation to Protect (‘I2P’) Grant</td>
<td>Aug 2019 - Aug 2020</td>
</tr>
</tbody>
</table>

Highlights from The Lab

- Ongoing projects at the Immunology lab:
  a) **Project title:** Prospective Study on Serum Antibodies Against Target Antigens of Bullous Autoimmune Diseases and Genetic Susceptibility (Project period: 2017-2019)
  
  **Objective of project:** To study and compare the novel biochip with the in-house diagnostic to establish a cohort of well characterised patients with autoimmune blistering diseases. The biochip will accelerate the diagnosis of patients with autoimmune blistering diseases by giving the same results like our routine diagnosis.

  b) **Project title:** Role of Macrophages in Human Hair Cycling and Alopecia

  **Objective of project:** To examine the immune infiltrate around human hair follicles during the disordered hair cycle, in particular androgenetic alopecia. Using single-cell RNA sequencing of isolated immune cells, NSC researchers will characterise their gene expression around hair follicles to discover novel mechanisms of hair cycle control in humans.

- In the Department of STI Control Clinical Lab, Mycoplasma Genitalium PCR (MG-PCR) testing has been offered as a service for patients. The MG-PCR test detects the causative agent for urethritis and cervicitis in patients, which in turn allows for better treatment outcomes, especially for patients with persistent conditions. With a short turnaround time and convenient testing, this has improved and expanded DSC’s STI screening services in the lab.
Providing an optimal standard of dermatological care requires continuous training. With the focus of NSC as a centre of learning for the next generation of dermatologists and staff, the Centre endeavours to provide ample opportunities for our staff to further expand their knowledge and skillsets.

### Inaugural Duke-National University Singapore student intake

NSC welcomed the third medical school, Duke-National University Singapore for undergraduate education in dermatology last year. With this, all three medical schools have come under the fold of NSC, as the main education partner. The inaugural batch of 27 Year 4 medical students from Duke-NUS for the Academic Year 2019 / 2020 were attached to NSC from 29 July to 8 August 2019, for undergraduate training in dermatology. The attachment provides an opportunity for students to gain basic dermatology knowledge, develop appropriate dermatological concepts and acquire dermatological skills that would give them a good foundation in their future careers in medicine.

### Nursing Education

As the main training centre for dermatology nursing, NSC’s nursing department continued their efforts of organising courses that aim to enhance healthcare providers’ knowledge in the dermatological sector and patient care.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>NO. OF PARTICIPANTS</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Basic Dermatology Nursing Course</td>
<td>17 Nurses:</td>
<td>10 April, 17 July and 9 October 2019</td>
</tr>
<tr>
<td></td>
<td>- 13 from NSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 1 from Institute of Mental Health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 1 from Society for the Aged Sick</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 2 from Singapore General Hospital</td>
<td></td>
</tr>
<tr>
<td>The Advanced Dermatology Nursing Course</td>
<td>5 Nurses:</td>
<td>13 May to 21 June 2019</td>
</tr>
<tr>
<td></td>
<td>- 2 from NSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 2 from Tan Tock Seng Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 1 from KK Women’s and Children’s Hospital</td>
<td></td>
</tr>
<tr>
<td>The Phototherapy and Photodiagnostics Course</td>
<td>5 Nurses:</td>
<td>16 to 24 September 2019</td>
</tr>
<tr>
<td></td>
<td>- 1 each from NSC, KK Women’s and Children’s Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 1 nurse from Hong Kong</td>
<td></td>
</tr>
<tr>
<td>The Patch Test Application Course</td>
<td>4 Nurses:</td>
<td>1 November 2019</td>
</tr>
<tr>
<td></td>
<td>- 1 from NSC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 2 from KK Women’s and Children’s Hospital</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 1 from National University Hospital</td>
<td></td>
</tr>
<tr>
<td>Sexually Transmitted Infection (STI) Training for Obstetrics &amp; Gynaecology Nurses</td>
<td>2 Advanced Practice Nurses from KK Women’s and Children’s Hospital</td>
<td>13 to 23 August 2019</td>
</tr>
</tbody>
</table>
Junior Nurses call her ‘teacher’ and ‘Ibu’

A typical work day for Nurse Clinician Norlaila Bte Kamarudin starts off with a 10-minute roll call with nurses to share work updates and important information. She then provides assessment or support at the treatment rooms when her fellow nursing colleagues require her advice, especially for patients with complex conditions such as extensive wounds and for the assessment of viral warts clearance. Ms Norlaila is also involved in training and mentoring both fellow nurses and new nurses, and participates in nursing education activities at NSC.

Ms Norlaila’s daily work and accumulated experiences working at NSC for over 24 years has shaped the way she teaches junior nurses. With a focus on the workplace as a learning environment, Ms Norlaila says it is important for nurse clinicians to possess a warm and approachable personality. This helps in the engagement between junior nurses and their mentors. Timely feedback is given to ensure that the nurses understand the implications from the outcome of their performance, and to focus on the learning points rather than highlighting failures and negative consequences.

While Ms Norlaila sometimes faces challenges such as needing to identify different types of learners and customising the way she teaches the junior nurses, her interaction with them has strengthened their mentor-mentee bond that some even call her ‘teacher’ or ‘Ibu’ (mother in Malay). This makes her feel appreciated and spurs her on to continue her work as a Nurse Clinician, a role she assumed in 2018.

When asked if she has advice for nurse clinicians who are new to the role, Ms Norlaila shares, “Keep a positive vibe in yourself as this will affect the behaviour of people around you. Maintaining an optimistic mindset also allows you to see the situation from a different perspective.”

Sexual Health Symposium at Mandarin Orchard

The Department of STI Control (DSC) held the annual Sexual Health Symposium at the Mandarin Orchard on 21 September 2019, with a total of 117 doctors in attendance. The symposium was themed Sexual Health in Primary Care, and covered a wide variety of topics, including local epidemiology of STI, changes to MOH notification requirements, approach to genital ulcers and discharges, Human Papillomavirus (HPV) screening updates and associated diseases and syphilis review. The latest on Post Exposure Prophylaxis (PEP) and Pre-Exposure Prophylaxis (PrEP) recommendations were also covered during the 3-hour symposium.

4th Asia Pacific HIV Practice Course

The Asia Pacific Health HIV practice course held from 25 to 29 November 2019, is jointly organised by the National University Hospital, Institute of Infectious Diseases and Epidemiology, Singapore General Hospital, Action for AIDS and DSC. The objective of the course is to improve the knowledge and skills of healthcare workers working within a HIV setting throughout the Asia Pacific Region. Representing DSC, Dr Martin Chio gave in-depth explanations on Sexually Transmitted infections, their epidemiology, presentations and complications, while Ms Shawne Lim shared about the Stigma & Discrimination faced by Transgendered Persons.
Continuing Professional Education for Pharmacy Staff

A series of 14 tutorial lectures on prescription drugs and retail products was conducted to ensure our pharmacy technicians maintain their competencies to deliver high standards of patient care services. It culminated in a competency exam in November 2019.

Pharmacists also conducted talks for General Practitioners at four Clinical Dermatology courses, contributed to medication-related talks for Continuing Professional Education for NSC nurses and participants of the Dermatology Nursing Course.

A seminar on Sweating Disorders was conducted on 24 August 2019 as part of the department’s Continuing Medical Education programme for pharmacists and pharmacy technicians. More than 110 attendees from various institutions harnessed insights and treatment options available for excessive and diminished sweating disorders. Such annual pharmacy seminars focusing on dermatological themes provide a useful platform for pharmacists and pharmacy technicians to be updated on practical approaches to the management of common skin conditions.

NSC GP Seminar & Public Forums

NSC GP Seminar 2019

NSC hosted a seminar for General Practitioners (GPs) on 6 July 2019 that focused on providing an introduction and care management tips of common skin complaints. A total of 120 participants attended the forum.

Topics covered:

- NSC Chronic Skin Disease – An Introduction To Right-Siting Programme
- Types of Adult Eczema and Management
- Red Scaly Rash – What Could It Be?
- ABCDEs of Moles

NSC Public Forums

To raise awareness on skin health and educate the community on common skin concerns, NSC held two public forums in 2019. Attendees who came for the events provided positive feedback that the talks were educational and beneficial to them in understanding more about dermatological self-care, as well as skin conditions that they may need to take note.

The first public forum – The Smooth, The Red and The Warty, took place on 21 September 2019 at the NSC auditorium and was attended by 60 participants.

Topics covered:

- How To Treat Facial Acne
- The Red: How Much Do You “Wheally” Know About Hives or Urticaria
- Smoothening Out The Bumps - Treating Acne and Keloid Scars
- The Warty – Common Facial Growths Explained, Warts and All

The second public forum with the theme Taking Care of Yourself from Head to Toe, was held on 26 October 2019 at the Singapore Management University (SMU) Administration Building. Both the English and Chinese sessions were well attended, mostly by middle aged and elderly participants. 200 participants attended the English session, while 150 participants attended the Chinese session.

Topics covered:

- Understanding Hair loss
- Get The Radiant Look - Clear The Blemishes and Anti-aging Treatment
- Nails Speak Volumes - Fungal Infection and Beyond
- The Embarrassing Itch - Why and What to Do
**Visiting Experts & Visiting Observer Fellows**

Visiting Cambodian Observer Fellows

Under a NSC programme to fund and support doctors from emerging countries in the region for learning attachments at NSC, Dr Khem Phalla and Dr Lok Kimsour, two dermatology residents of the University of Health Sciences Phnom Penh and Preah Ang Auong Hospital Phnom Penh respectively, were attached to NSC from 8 April to 28 June 2019. Both doctors found the training an invaluable way to learn and gain knowledge to bring back to Cambodia and work towards enhancing their healthcare capabilities.

**Visiting Experts**

Emeritus Professor An Goossens

NSC was pleased to host Emeritus Prof An Goossens, from the Department of Dermatology, Leuven University, Belgium, from 30 July 2019 to 3 August 2019. An expert in the areas of contact dermatitis, occupational dermatology, patch testing and contact urticarial, Prof Goossens gave several lectures at NSC on a range of topics, including corticosteroid allergies, allergic contact dermatitis from natural products and patch test procedure with a patient’s own products. Prof Goossens commended NSC’s facilities, stating that the Centre was efficiently organised and systematic in terms of staff’s job scopes.

Professor Martin Rocken

It was a privilege for NSC to host Prof Martin Rocken, Chairman of the Department of Dermatology, Eberhard Karls University, Tubingen, Germany, from 11 to 16 November 2019. Prof Rocken gave lectures at NSC that included topics on atopic dermatitis: pathogenesis and therapy, melanoma therapy and chronic cutaneous lupus erythematosus. He was impressed with the standard of clinical care for patients, which he complimented was comparable to the best centres in the world.

Ms Ann Gaffey

NSC welcomed Ms Ann Gaffey, President of Healthcare Risk and Safety Strategies based in Virginia, United States of America, on 4 September 2019. During her sharing session with staff, Ms Gaffey shared her expertise on ways to identify risks effectively in a high volume Ambulatory care setting, and also on the top six categories of errors in Ambulatory care settings.

**Medical Education Report**

As the main training centre for dermatology nursing, NSC’s nursing department continued their efforts of organising courses that aim to enhance healthcare providers’ knowledge in the dermatological sector and patient care.

**Undergraduate Schools Attachments**

<table>
<thead>
<tr>
<th>Programme</th>
<th>No. of Participants</th>
<th>Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUS Medicine (Yong Loo Lin School of Medicine): Final Year Medical Students Clinical Posting</td>
<td>302</td>
<td>19 July 2019 to 31 January 2020</td>
<td></td>
</tr>
<tr>
<td>Lee Kong Chian School of Medicine Year 3 Medical Students Clinical Posting</td>
<td>115</td>
<td>13 May 2019 to 28 February 2020</td>
<td></td>
</tr>
<tr>
<td>Lee Kong Chian School of Medicine Year 5 Selective Posting</td>
<td>3</td>
<td>22 July 2019 to 2 August 2019</td>
<td></td>
</tr>
<tr>
<td>Duke-NUS Year 4 Clinical Posting</td>
<td>58</td>
<td>29 July 2019 to 20 December 2019</td>
<td></td>
</tr>
<tr>
<td>Duke-NUS Year 2 OB/GYN / LIC (DSC)</td>
<td>40</td>
<td>22 April 2019 to 5 July 2019</td>
<td></td>
</tr>
<tr>
<td>NUS Pharmacy Year 4 Ambulatory Rotation</td>
<td>9</td>
<td>11 February 2019 to 2 February 2019</td>
<td></td>
</tr>
<tr>
<td>Lee Kong Chian School of Medicine Year 3 Pre-Rotational Team-based Learning (TBL)</td>
<td>230</td>
<td>9 May 2019 to 31 January 2020</td>
<td></td>
</tr>
<tr>
<td>NUS Medicine (Yong Loo Lin School of Medicine)</td>
<td>13</td>
<td>1 April 2019 to 28 June 2019</td>
<td></td>
</tr>
<tr>
<td>Overseas - Bilateral Exchange Agreement (BEA)</td>
<td>6</td>
<td>5 August 2019 to 27 December 2019</td>
<td></td>
</tr>
<tr>
<td>Overseas - Non Bilateral Exchange Agreement (Non-BEA)</td>
<td>3</td>
<td>15 July 2019 to 27 September 2019</td>
<td></td>
</tr>
<tr>
<td>Overseas - Direct registration with NSC</td>
<td>5</td>
<td>22 April 2019 to 7 February 2020</td>
<td></td>
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</tbody>
</table>

**Pre-Rotational Teaching**

Lee Kong Chian School of Medicine Year 3 Pre-Rotational Team-based Learning (TBL) | 230 | 9 May 2019 to 31 January 2020 |

**Elective Students Posting**

NUS Medicine (Yong Loo Lin School of Medicine) | 13 | 1 April 2019 to 28 June 2019 |

**PROGRAMME**

**NO. OF PARTICIPANTS**

**DATE**

**REMARKS**

Australia 1, Hong Kong 2, India 1, Macau 1, Malaysia 11, Singapore 14

Philippines 16

Indonesia 1, Philippines 11, Singapore 3

China 2, Malaysia 1, Taiwan 3

Singapore 3

Singapore 4, India 1
### School Attachment

<table>
<thead>
<tr>
<th>Program</th>
<th>No. of Participants</th>
<th>Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUS-Alice Lee Centre of Nursing Studies (ALCNS)</td>
<td>271</td>
<td>26 August 2019 to 5 February 2020</td>
<td></td>
</tr>
</tbody>
</table>

### Specialised Dermatology Observership Attachment

<table>
<thead>
<tr>
<th>Program</th>
<th>No. of Participants</th>
<th>Country/Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Dermatology (Dermatologic Surgery)</td>
<td>15</td>
<td>Bangladesh 1, India 13, Spain 1</td>
</tr>
<tr>
<td>b) Dermatology (Photodynamic &amp; Pigment Clinic)</td>
<td>1</td>
<td>Taiwan 1</td>
</tr>
<tr>
<td>c) Dermatology (Dermatopathology)</td>
<td>6</td>
<td>Australia 1, Hong Kong 1, India 1, Japan 1, Malaysia 1, Philippines 1</td>
</tr>
<tr>
<td>d) Dermatology (Photobiology/Phototherapy)</td>
<td>3</td>
<td>Malaysia 1, Philippines 2</td>
</tr>
<tr>
<td>e) Dermatology (STI)</td>
<td>1</td>
<td>Philippines 1</td>
</tr>
<tr>
<td>f) Dermatology (Researcher)</td>
<td>1</td>
<td>Israel 1</td>
</tr>
<tr>
<td>g) Dermatology (Pediatric)</td>
<td>1</td>
<td>Philippines 1</td>
</tr>
</tbody>
</table>

### General Dermatology Observership Attachment - Overseas

<table>
<thead>
<tr>
<th>Program</th>
<th>No. of Participants</th>
<th>Country/Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) NSC Sponsored</td>
<td>2</td>
<td>Cambodia 2</td>
</tr>
<tr>
<td>b) Self – Sponsored</td>
<td>7</td>
<td>Bangladesh 1, India 2, Myanmar 3, Taiwan 1</td>
</tr>
</tbody>
</table>

### General Dermatology Observership Attachment - Local

<table>
<thead>
<tr>
<th>Program</th>
<th>No. of Participants</th>
<th>Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>NHG Advance Internal Medicine Observer</td>
<td>2</td>
<td>July 2019, November 2019</td>
<td></td>
</tr>
<tr>
<td>NHG Pathology</td>
<td>1</td>
<td>August 2019</td>
<td></td>
</tr>
<tr>
<td>NHG Emergency Medicine</td>
<td>1</td>
<td>October 2019</td>
<td></td>
</tr>
<tr>
<td>NHG Rhumatology Medicine Trainee</td>
<td>1</td>
<td>January 2020</td>
<td></td>
</tr>
<tr>
<td>NHGP Family Medicine (Occupational Med)</td>
<td>5</td>
<td>June 2019, September 2019, December 2019</td>
<td></td>
</tr>
<tr>
<td>NHGP, Family Medicine Trainees</td>
<td>14</td>
<td>April 2019, May 2019, June 2019</td>
<td></td>
</tr>
<tr>
<td>NUHS Pathology Trainee</td>
<td>1</td>
<td>May 2019</td>
<td></td>
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<tr>
<td>NUHS, Paediatric Dept</td>
<td>1</td>
<td>June 2019</td>
<td></td>
</tr>
<tr>
<td>Singhealth, Infectious Diseases Trainees</td>
<td>1</td>
<td>April 2019</td>
<td></td>
</tr>
<tr>
<td>Singhealth, Paediatrics</td>
<td>2</td>
<td>April 2019, July 2019</td>
<td></td>
</tr>
<tr>
<td>Singhealth, Pathology Trainee</td>
<td>2</td>
<td>July 2019, January 2020</td>
<td></td>
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</table>

### Visiting Clinical Fellowship - Overseas

<table>
<thead>
<tr>
<th>Program</th>
<th>No. of Participants</th>
<th>Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) PGIM (Sri Lanka)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Victoria Faculty Fellowship (Australia)</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) India</td>
<td>1</td>
<td></td>
<td></td>
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<tr>
<td>d) Oman (MOH)</td>
<td>1</td>
<td></td>
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</table>

### General Dermatology Clinical Attachment - Local

<table>
<thead>
<tr>
<th>Program</th>
<th>No. of Participants</th>
<th>Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>TTSH, Department of Internal Medicine, Medical Officers</td>
<td>4</td>
<td>April - June 2019</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>July - September 2019</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>October - December 2019</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>January 2020</td>
<td>Due to COVID-19, all returned to TTSH on 7 February 2020</td>
</tr>
</tbody>
</table>

### Medical Practitioners’ Seminar 2019 / 2020

<table>
<thead>
<tr>
<th>Program</th>
<th>No. of Participants</th>
<th>Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>An Introduction to Common Skin Complaints</td>
<td>120</td>
<td>6 July 2019</td>
<td></td>
</tr>
<tr>
<td>Sexual Health Symposium</td>
<td>117</td>
<td>21 September 2019</td>
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</table>

### DSS-NSC Aesthetic Procedure Training Courses

<table>
<thead>
<tr>
<th>Program</th>
<th>No. of Participants</th>
<th>Date</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Peels</td>
<td>15</td>
<td>27 July 2019</td>
<td></td>
</tr>
<tr>
<td>Intense Pulsed Light</td>
<td>9</td>
<td>6 July 2019</td>
<td></td>
</tr>
<tr>
<td>Dermal Fillers</td>
<td>19</td>
<td>7 September 2019</td>
<td></td>
</tr>
<tr>
<td>Laser Hair Removal</td>
<td>11</td>
<td>31 August 2019</td>
<td></td>
</tr>
<tr>
<td>Botulinum Toxin</td>
<td>25</td>
<td>19 October 2019</td>
<td></td>
</tr>
</tbody>
</table>
Our Staff, Our People

Milestones

Staff are an important asset to NSC. Here, we nurture and encourage them to upgrade themselves by providing opportunities for skills upgrading and professional development. In advocating meaningful relationships among colleagues and patients, we strive to work together for continued excellence in dermatology care.

Awards

🎉 NATIONAL DAY AWARDS
The National Day Awards are conferred upon individuals in recognition of merit and service to Singapore. In 2019, three NSC staff were recognised for their long-standing commitment and dedication to the Centre.

- Ms Theresa Soon, Manager
- Mr Tan Ee Han, Senior Counsellor
- Mr Rahman Bin Katama, Counsellor

🎉 EGO - NATIONAL SKIN CENTRE
DERMATOLOGY REGISTRAR FELLOWSHIP

- Dr Chia Keng Yong Brian, Associate Consultant (as at April 2020)

Fellowships allow NSC staff to gain a wider knowledge and increase their proficiency within their specialised field, which will translate to a higher level of care for patients. In 2019, Dr Brian Chia was presented with the Ego-National Skin Centre Dermatology Registrar Fellowship.

🎉 NMRC CLINICIAN SCIENTIST AWARD

- A/Prof Thng Tien Guan Steven, Senior Consultant

A/Prof Steven Thng was presented the Clinician Scientist Award from the National Medical Research Council (NMRC) for his research: Development of non-invasive in-vivo bedside skin imaging tools to transform patient care in diagnosis, classification and management of skin cancer and inflammatory dermatoses. The award recognises research excellence and provides funding grants that allow awardees to carry out internationally competitive translational and clinical research.

🎉 MOH NURSES MERIT AWARD

- Mr Ahmad Shufi Bin Jasmani, Senior Staff Nurse

The Nurses’ Merit Award is given to nurses who have demonstrated consistent and outstanding performance for the past three years, participated in professional development and have made contributions to promote the nursing profession. Mr Ahmad Shufi Bin Jasmani, Senior Staff Nurse was one of the 101 nurses who received the award in July 2019.
NATIONAL HEALTHCARE GROUP (NHG) AWARDS

The NHG Awards salute exemplary individuals and teams who have made significant contributions and collectively raised the standards of healthcare, improving the lives of our patients and the broader community.

HEALTH MANPOWER DEVELOPMENT PLAN (HMDP) ADMINISTRATOR AWARD

The HMDP Administrator Award is awarded to outstanding healthcare professionals to pursue programmes and advance their skills, in line with the strategic manpower needs of NHG. A/Prof Chua Sze Hon was presented with the HMDP Administrator Award at the NHG Awards in May 2019.

NSC’S EDUCATORS

Educators are an invaluable asset to the growth and development of our staff. The following doctors and staff were recognised at the NHG Awards for their dedication to teaching and education:

- NHG TEACHING AWARD FOR SENIOR DOCTORS
  - Dr Oon Hwee Boon Hazel, Senior Consultant

- NHG INTER-PROFESSIONAL TEACHING AWARD
  - Dr Yew Yik Weng, Consultant

- NHG OUTSTANDING NURSE TEACHERS AWARD
  - Mr Mohd Adnan Bin Mahmod, Nurse Clinician

- NHG TEACHING AWARD FOR NURSING PRECEPTORS
  - Ms Foo Pei Ling Charlene, Senior Staff Nurse

- NHG TEACHING AWARD FOR NURSING PRECEPTORS
  - Ms Leong Hui Hui, Senior Staff Nurse

- NHG OUTSTANDING CITIZENSHIP (OC) AWARD
  - Ms Lim Bee Khim Brenda, Head, Nursing

Ms Brenda Lim was recognised for her outstanding contributions as a leader in promoting dermatology nurses’ profiles and improvement in workforce productivity through nurse-led services, education activities and research for more than a decade in serving at NHG.

NHG TEAM RECOGNITION AWARD (SILVER)

Dr Pan Jun Yit, Senior Consultant
Dr Heng Yee Kiat, Consultant
Mr Johnny Foo, Manager, Clinic Operations

The NHG Team Recognition Award recognises top performing teams who have contributed significantly to the improvement of healthcare delivery processes.

NSC received the NHG Team Recognition Award (Silver) in collaboration with the Institute of Mental Health (IMH). IMH patients from its long-stay wards needing dermatological care were routinely transferred to NSC for treatment. Each journey averages four hours in duration, requires accompanying nursing staff and a two-way ambulance trip. NSC’s e-consultation portal, Tele-DERM, had allowed IMH’s dermatology nurses to upload digital images of patients’ skin conditions and clinical data for our dermatologists to remotely assess the patients’ condition.

Our dermatologists were also appointed as Visiting Consultants to attend to new referrals after initial assessment by ward doctors.

EXCELLENCE IN ACTION AWARD

The Excellence in Action Award (EIAA), presented by National Healthcare Group (NHG) recognises individuals and teams who provide exceptional service both within the organisation and to customers and patients. It also recognises significant contributions to work practices that improve customer service or patient safety.

- A/Prof Thng Tien Guan Steven – Medical
  - Ms Cheng Ju Shao Jenny – Allied Health
  - Ms Low Leng Leng Serene – Ancillary and Support
  - Ms Noorainni Binte Mohamed Ismail – Ancillary and Support
  - Mr Ang Chin Tiang – Executive and Administration

Pulse Survey 2019

Following the sharing of NSC’s Employee Climate Survey (ECS) 2018 results, the various departments made an effort to implement a series of initiatives to work on areas that required improvement and better engage staff. To evaluate on the effectiveness of these initiatives, the Pulse Survey was conducted in November 2019, which received a 68% response rate. The survey results allowed departments to review their initiatives and processes, and to further act on opportunities to improve in any areas to augment the organisational culture and work environment. Examples of the initiatives include better engagement with staff on their performance appraisal, stronger communication and fostering teamwork in the workplace when staff are given adequate support and encouragement from their supervisors.

Doctors and Managers’ Strategic Retreat 2019

As the completion of NSC’s new building beckons, NSC’s doctors and managers embarked on an envisioning exercise to review the Centre’s vision and mission at the doctor’s and Managers’ Strategic Retreat on 18 October 2019. Taking stock is essential before our next lap in providing excellent dermatological care for the nation. Three weeks before the retreat, conversations were started to find out more about staff’s aspirations for NSC as we move into the new building. From the harnessing of these insights gathered from 115 staff members who were interviewed, funnelling them into themes, the doctors and managers then subcategorized them according to our visions from different perspectives, namely the perspectives of Patients, Staff, Partners and Stewards. With these groups in mind, discussions at the Retreat crystallised NSC’s vision, mission and key strategies that will transform our journey in dermatological care for the nation.

NSC Quality Day 2019

System Reliability was the theme for NSC’s Quality Day held on 16 October 2019. Adj A/Prof Leow Yong Hian, Senior Consultant and Chairperson of the organising committee shared with attendees how healthcare workers could achieve ‘System Reliability’ by “Designing it right, Doing it right and Detecting the risk right”.

- Designing it right – Should put in place the right systems and work processes to optimise healthcare for patients.
- Doing it right - Provide training for healthcare workers to equip them to handle various exigencies.
- Detect the risk right - This involves incorporating a system of checks for early detection of errors which would prevent from escalating into catastrophic events.

During the event, attendees also learnt more about two Clinical Practice Improvement Programme projects from Dr Suzanne Cheng, Senior Consultant, who shared how to reduce the routine use of topical antibiotic after minor clean dermatological surgery at NSC’s Procedure Suites and Clinic A/B, and Ms Chen Wei Yu, Senior Pharmacist, spoke about how to achieve zero dispensing error and patient administration error involving wrong prednisolone tapering regimen.

Staff events

NSC’s Dinner and Dance 2019

Fairytale magic came alive at the Mandarin Oriental Singapore during NSC’s Dinner and Dance event held on 29 June 2019, when staff and invited guests sportingly dressed for the occasion as characters from beloved fairytale stories. The night was filled with entertainment and hilarious moments, thanks to the lively emcee who engaged staff with his humour during the activity segments. There was also a series of captivating performances by our very own doctors and staff who showcased their talents.

NSC Staff performing at the 2019 Dinner and Dance
Corporate Social Responsibility

NSC Food & Jumble Sale 2019

The annual Food and Jumble Sale held on 19 November 2019, saw staff from various departments selling food, toys, clothes, books, plants and even household items. The total funds raised was $1,940.12 and the proceeds went towards the NSC Health Endowment Fund, which supports the pursuit and promotion of medical research as well as health related services for dermatology in Singapore.

The Resilience of NSC’s Staff during COVID-19

Revamp of NSC’s Workflow

The novel coronavirus pneumonia outbreak which emerged in Wuhan as the epicentre in December 2019, reached the shores of Singapore with its first imported case on 23 January 2020. The Ministry of Health swung into action, coordinating and centralising the operations of the national healthcare system. This included increasing the capacity of Intensive Care Units (ICU), hospital beds and equipment, to galvanizing manpower for the pandemic operations and securing supplies of personal protection equipment and test kits. A multi-ministry taskforce directed a whole-of-government response to the novel coronavirus outbreak.

While NSC as a specialty centre is not directly involved in the care of COVID-19 patients, the impact of COVID-19 on the specialty was deeply felt. NSC responded rapidly by implementing measures to cope with the pandemic by setting up of a Fever/Upper Respiratory Tract Infection clinic and triage screening area at the basement. The centre also underwent disinfection and thorough cleaning. NSC ceased non-essential services and replacing face-to-face consultations with tele-dermatology, conducted remotely for vulnerable patients. To ensure seamless care delivery for patients with valid or repeat prescriptions, the pharmacy increased medication delivery services island wide. NSC also revamped and updated the workflow and processes to respond to the ever-changing pandemic situation.

Colours of The Rainbow – Art Activity at St Andrew’s Nursing Home

The annual Corporate Social Responsibility initiative which took place on 23 November 2019, saw 30 National Skin Centre volunteers from various departments spending a colourful morning at St. Andrew’s Nursing Home (SANH) (Buangkok) to bring joy to their forty residents.

Helming the nostalgic and interactive “Sing-A-Long” and “Guess-The-Item?” segments, Nurse Clinician Ms Tan Yoke Choo, actively garnered the participation of many residents. The highlight of the morning — “Colours of the Rainbow”, saw NSC volunteers assisting residents to unleash their creativity by painting on tote bags.

Each resident happily personalised their tote bags with colourful and unique representations of nature – fruits, vegetables, flowers and animals. In her closing address, Prof Tan Suat Hoon, NSC Director, summed up the meaningful weekend as a therapeutic session for the residents, which had also presented as an opportunity to bring wellness to NSC staff through their active participation.

1. NSC Taskforce

A multi-disciplinary Taskforce across NSC departments was formed to manage the COVID-19 situation in alignment with MOH and NHG COVID-19 measures. This involved weekly Taskforce meetings to ensure NSC’s responsiveness to the ongoing developments. Precautions taken include team segregation, safe distancing and reconfiguration of activities to focus on priority areas.

2. Manpower Redeployment

Staff familiarised themselves with new work processes and switched workstations due to team segregation as the situation evolved. As a preventive measure for infection control, NSC scaled down operations from 10 to 21 February 2020 so as to focus on NSC’s essential services for patient and staff safety. The active team (Team A) covered the clinics, while the passive team (Team B) focused on academic and administrative duties.

3. Health Surveillance

Daily temperature taking and reporting by all staff via the S3 surveillance platform was reinforced. Since Dorson Orange, staff are required to take their temperature twice daily and maintain high standards of personal hygiene.
4. Cancellation of all Overseas Leave
Staff cancelled their conference or annual leave for family trips to support the increased workload and operational needs. These measures aimed at ensuring sufficient manpower due to heightened measures required for COVID-19.

5. Adjustments to Clinic Operations
Adjustments were made to clinic operations with medical staff having to attend or cover clinics that were not their subspecialty areas due to the team segregation. Medical staff also provided timely advice to inter-disciplinary teams on treatment protocols and implemented the screening criteria for urgent and non-urgent cases for consultation. New clinic sessions were planned for the Mandalay Clinic and Procedure Suites to accommodate members of the same team.

6. Basement – Triage and Fever Clinic
NSC observed strict zonal segregation of patient and staff areas to minimise transmission. A triage area was set up at the Basement, to monitor patients’ and visitors’ temperatures, assisting patients and next-of-kin with their online travel and health declarations. Administrative staff also supported screening of patients and visitors by adhering to advisories from MOH on changing case definitions as the COVID-19 situation evolved nationwide and globally. The Operations team worked closely with the Infection Control team to establish a new fever/Upper Respiratory Tract Infection clinic. The Fever Clinic is an isolation room meant for high-risk patients who require medical attention. Staff also handled cash and credit card payments here to expedite payment for high-risk patients.

7. Appointments and Call Centre
Appointment staff proactively rescheduled appointments for patients who had recent travel history, URTI symptom(s) and non-urgent dermatological condition(s) based on taskforce recommendations.

8. Refreshed PPE training
Nurses assisted in managing caseloads and developed protocols for the differentiation of essential services and usual treatments, in view of patients’ condition. Nurses also kept a look out for and identified potential high-risk patients that may slip through the screening stations. They also conducted the PPE refresher training for all staff at staggered timings to ensure proper segregation.

9. Home Delivery Services (Pharmacy)
The Pharmacy handled a higher demand for home delivery services as more patients opted for repeat prescriptions and courier services. They managed the segregation processes for retail, frontline and backroom staff, vendors and visitors to ensure safe distancing in the pharmacy. Close monitoring and inventory checks of supplies, were conducted to cope with the increasing demand whilst facing uncertainties in supply continuation.

10. Increased Disinfection and Thorough Cleaning
Support Service Staff facilitated the increased frequent cleaning of NSC’s premises and facilities to ensure the Centre thoroughly disinfected and cleansed. The stock for PPE supplies are also monitored closely on an ongoing basis.

11. Patient and Staff Advisories
Corporate Development and Communications provided support to the NSC Taskforce with the refreshment of COVID-19 updates across communication platforms (collaterals, website, staff newsletter and social media) for patients and staff.

12. Education and Academic Activities
Medical education activities were reconfigured with the introduction of e-learning via Zoom for medical undergraduates, Continuing Medical Education and the selection interviews for the Senior Residency programme.

13. Research Developments
Recruitment for many research projects are on hold as patients without medical appointments are not allowed into the Centre. Recruitment of subjects are now purely drawn from patients visiting NSC for their medical appointments. Projects, requiring visits to collaborators’ labs and on-site monitoring visits have also been paused.

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Staff Deployment at Community Care Facilities
NSC consolidated its workforce with the rest of National Health Group’s (NHG) institutions, to contribute medical and nursing manpower at the frontlines. Staff from Medical, Nursing, Ancillary, Allied Health and Administration departments provided crucial support in COVID-related areas such as the Community Care Facility @ Expo, medical posts for the foreign worker dormitories (FWD), at the National Centre of Infectious Diseases, Tan Tock Seng Hospital, Khoo Teck Puat Hospital and Admiralty Medical Centre.

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Statistics: Staff Strength
Administration, allied health, ancillary, medical, nursing:

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Left to right: A/Prof Steven Thng, Lead, Phlebotomy Operations, nurse Breena Lee and nurse Liu Yan
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