

Subject Outline: Management of Lower Limb Venous Disease (CDE IV)



THE AUSTRALASIAN COLLEGE
OF DERMATOLOGISTS

Course: Graduate Diploma in Cosmetic Dermatology

Subject: CDE IV: Management of Lower Limb Venous Disease (Elective)

Credit Points: 3

Year/Semester Delivered: 1

Pre requisites: Grad Cert in Cosmetic Dermatology

Subject Outline:

This subject covers an advanced procedural dermatological topic treating two components, of venous disease, Phlebology and Microsclerotherapy.

Phlebology involves the diagnosis and treatment of venous and lymphatic disorders, including spider veins, varicose veins, chronic venous insufficiency, venous leg ulcers, congenital venous abnormalities, venous thromboembolism and other disorders of venous and lymphatic origin. In broad terms it includes the prevention, diagnosis, treatment and rehabilitation of patients with venous diseases and venous malformations.

Microsclerotherapy is the application of advanced specific technique employed to treat venous issues including but not limited to some of those conditions listed above, especially spider veins on the legs.

Additionally, as an elective subject, students will be expected to carry out some self-directed learning/research to support their advancement of knowledge and skills in this self-elected area of interest.

The broad content areas covered include:

Phlebology:

- Venous hypertension and its complications
- Pathophysiology of varicose veins and telangiectasias
- Diagnostic techniques
- CW-Doppler competency
- Principles of duplex ultrasound
- Thrombophilia and hypercoagulable states
- Diseases with telangiectatic manifestations
- Vessel classification
- Indications and contra-indications for sclerotherapy
- Sclerosing agents

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- Pharmacokinetics and pharmacodynamics of sclerosing agents
- Sclerotherapy
- Ultrasound guided sclerotherapy
- Endovenous laser ablation
- Medical and ethical aspects of sclerotherapy
- Infection control

Advanced Interventional Techniques -Microsclerotherapy:

- Preparation and visualization
- Adverse sequelae
- Post injection care

Successful completion of this subject will ensure the student is competent in the skills listed.

This subject is supported by an online module which may contain when appropriate, topic content, additional resources (including but not limited to, additional readings and/or pre-readings, online references, self-diagnostic quizzes, images, videos etc.).

Subject Learning Outcomes:

After completing this subject, students will be able to:

- SLO 1:** Demonstrate a depth of knowledge and understanding of the theoretical background to the management of lower limb venous disease
- SLO 2:** Diagnose common venous diseases/ presentations
- SLO 3:** Apply commonly used diagnostic techniques to diagnose
- SLO 4:** Identify thrombophilia and hypercoagulable states
- SLO 5:** Demonstrate a knowledge of the commonly used sclerosing agents and their application
- SLO 6:** Select appropriate sclerosing agent dosage (sodium tetradecyl sulfate and polidocanol based)
- SLO 7:** Demonstrate a knowledge and understanding of indications, contraindications of ultrasound guided sclerotherapy and endovenous laser ablation
- SLO 8:** Correctly select patients who will benefit from sclerotherapy/microsclerotherapy.
- SLO 9:** Demonstrate understanding of appropriate compression therapy
- SLO 10:** Demonstrate an understanding of mitigation strategies to minimise/prevent complications arising from sclerotherapy.

The online support module may also, where appropriate, contain additional related learning outcomes specific to the component sections.

Student Workload:

Reference should be made to the ACD Academic Awards Framework Policy to provide a guide as to the minimum time a full time student should spend working on this subject.

In general, “Over a semester, a 3 Credit Point (CP) subject will have a total of at least **36 hours timetabled teaching/student contact time associated with it.**”

In the case of this elective subject, the majority of this time will involve work-place based instruction and/or assessment. As it is assumed that the student has selected this Elective subject based on a particular interest in the subject matter involved, it would be expected that a significant component of the time allotted to completion of the subject would involve personal research in the area.

Generally, this time will be comprised of a mix of online virtual classroom teaching sessions (approx. 70%) and practical activities if or where appropriate.

Note also that “1CP will equate to a minimum of 2.5 hours **personal study/practice** time per week for the full time student. Over a semester (20 weeks) this equates to 150 hours of personal study time for a 3 CP subject”.

As graduate diploma course is essentially an online course with respect to ‘interaction with content/theoretical concepts’, students will be expected to spend a considerable portion of their personal study time per week over the semester period of 20 weeks working in the respective subject online support modules.

Timetabled student contact/teaching time will be focused on extension of the content of the course that is provided via the online modules.

Teaching:

General teaching strategies to be adopted in the delivery of the 'theoretical Elective subjects' and to a lesser extent the compulsory procedurally based practical subjects* (CD V and CD VI) include but are not limited to:

- Weekly scheduled virtual F2F scheduled teaching/tutorial/student interaction sessions using online synchronous webinar technologies.
- Online open discussion spaces (synchronous/asynchronous)
- Independent online learning/activity within the supporting online content modules
- Live teaching/tutorial scheduled sessions and combined assessment of clinical knowledge and skills (where appropriate)
- Access to pre-recorded lectures/tutorial sessions
- Clinically based procedural tutorial where appropriate
- Independent/Self Directed Problem Based Learning

Total teaching format time will be determined by the nature of the subject being delivered*. The format distribution listed below will apply to subjects with a dominant 'theoretical' component (Electives).

- Virtual and/or F2F scheduled teaching/student interaction sessions using online synchronous webinar technologies and/or physical locations: (generally not less than 70%)
- Other formats including live teaching/clinical and/or work-place based interaction (generally not more than 30%)

Assessment:

Assessment of the student outcomes may utilise any or all of the tools listed as appropriate.

For this subject as for all the selective ELECTIVE subjects, the emphasis is skewed more towards a theoretical approach with practical/procedural experiences included where appropriate.

Consequently, the breakdown for assessment weighting in Elective subjects would generally be:

- Practical component of not more than 50%
- Coursework/knowledge component of not less than 50%

The above weighting may vary based on the nature of the elective. For example, a higher practical component may become evident in subjects such as CDE IV: Management of lower limb venous disease.

With the greater emphasis on theoretical content and hence assessment, the tools to be adopted to assess knowledge components in this elective subject will align with the following framework as appropriate:

- Online, invigilated MCQ examinations (not more than 20%)
 - Includes but not limited to: theoretical concepts; scenario based problem solving
- Written submissions (not less than 30%)
 - Includes but not limited to:
 - Analysis/reports on cases/areas of interest
 - Investigation/reports on research innovation;
 - Subject/procedural targeted reports/reflections,
- Portfolio of Work/log book* comprised of above and any additional records of assessment/practical clinical experiences or procedural activities as may be required on a case by case basis
- Work-place based competency tasks including DOPs, MiniCEX, CbD may also be used if appropriate

* Certification refers to 'sign-off' by a suitably qualified agent who was **present at the** time of the performance of the procedural skill/other logged activity **and** either supervised or observed the activity.

Assessment Task Distribution and Weighting (May be varied with notice)

Assessment task	Weight	Subject Learning outcomes assessed	Curriculum Learning Outcomes	Due date
MCQ Exam/Quizzes	20%	SLO 1 - 10	CLOD 1 - 6	TBA
Portfolio/Logbook**: Patient Selection, diagnosis and commonly used diagnostic techniques	15%	SLO 2 – 3, 8	CLOD 1, 3 - 4	TBA
Portfolio/Logbook**: Thrombophilia and hypercoagulable states	15%	SLO 4	CLOD 1 - 6	TBA
Portfolio/Logbook**: Sclerotherapy and Sclerosing agents	15%	SLO 5 - 10	CLOD 1 - 6	TBA
Portfolio/Logbook**: Ultrasound guided sclerotherapy	15%	SLO 5 - 10	CLOD 1 - 6	TBA
WpB (DOPs/MiniCEX) of selected techniques/treatments	15%	SLO 2 – 10	CLOD 1 - 6	TBA
Virtual Classroom participation/contribution	5%	SLO 1 - 5	CLOD 1 - 6	Weekly

* **Portfolio(s)/Logbook(s) must** be comprehensive and must as a minimum include:

- Patient and procedure details
- Feedback by competency assessor
- Reflection
- Certified as a true and accurate record of demonstration of skill in or participation in/observation of a nominated activity (See definition earlier)

Recommended Resources:

The resources listed below are recommended rather than required readings and as such, apart from those available via existing College supported accessible subscriptions, students are expected to source these and any others they may source through their own avenues.

General (Covering all sections)

- Cosmetic Dermatology: Alam, Hayes, Gladstone and Tung. ISBN: 978-0-7020-3143-4
- Surgery of the Skin; Robinson et al.
- Procedures in Cosmetic Dermatology Series

Section Specific resources:

Cutaneous Anatomy

- Robinson J.K et al., Surgery of the Skin 2nd Edition. 2010 Elsevier, **Chapter 1**.
- Robert P Chilcott, Shirley Price; Principles and Practice of Skin Toxicology. 2008 John Wiley & Sons, **Chapter 1**.
- Stuart J. Salasche, Gerald Bernstein; Surgical Anatomy of the Skin. 1988 Appleton & Lange, **Chapter 2**.
- Procedures in Cosmetic Dermatology Series: Carruthers & Carruthers. Soft Tissue Augmentation 3rd Ed. 2013. Elsevier London **Chapter(s) 1, 2**
- Procedures in Cosmetic Dermatology Series: Botulinum Toxin 3rd Ed. 2013. **Chapter 1**
- Refer to the online module for additional Journal Readings

Ageing and photo-ageing

- Robinson JK, Hanke CW, Siegel DM, Fratila A (Ed), Surgery of the Skin. 2010 Mosby, UK, 2nd Edition. **Chapter 22**
- Burgess C. (Ed), Cosmetic Dermatology. 2005 Springer Publishing, USA.
- Procedures in Cosmetic Dermatology Series: Soft Tissue Augmentation 3rd Ed. 2013. **Chapter 2**
- Refer to the online module for additional Journal Readings

Concepts of beauty and appearance

Books

- Goodman GJ. Ch 3: Facial attractiveness and the central role of volume. In: Carruthers, Dover, Carruthers and Alam (eds). *Soft tissue augmentation*. Elsevier.
- Robinson JK, Hanke CW, Siegel DM, Fratila A (Ed), Surgery of the Skin. 2010 Mosby, UK, 2nd Edition. **Chapter 21**
- Procedures in Cosmetic Dermatology Series: Botulinum Toxin 3rd Ed. 2013. **Chapter 20**
- **Journals:**
- Pallett PM, Link S, and Lee K. New “Golden” Ratios for Facial Beauty. *Vision Res.* 2010 January 25; 50(2): 149. doi:10.1016/j.visres.2009.11.003.
- Bashour M. History and Current Concepts in the Analysis of Facial Attractiveness. *Plast. Reconstr. Surg.* 118: 741, 2006.

- Magro AM. Evolutionary-derived anatomical characteristics and universal attractiveness. *Perceptual and Motor Skills* 1999; 88, 147-166.
- Perret DI, Lee KJ, Penton-Voak I, Rowland D, Yoshikawa S, Burt DM, Henzi SP, Castles DL, Akamatsu S. Effects of sexual dimorphism on facial attractiveness. *Nature*. 1998 Aug 27;394(6696):884-7.
- Johnston C, Orlagh Hunt O, Burden D, Stevenson M, Hepper P. The influence of mandibular prominence on facial attractiveness. *Eur J Orthodontics* 27 (2005) 129–133.
- Wolbring T, Riordan P. How beauty works. Theoretical mechanisms and two empirical applications on students' evaluation of teaching. *Soc Sci Res*. 2016 May;57:253-72. doi: 10.1016/j.ssresearch.2015.12.009. Epub 2016 Jan 14.
- Weeks DM, Thomas JR. Beauty in a multicultural world. *Facial Plast Surg Clin North Am*. 2014 Aug;22(3):337-41. doi: 10.1016/j.fsc.2014.04.005. Epub 2014 Jun 10.
- Swift A, Remington K. BeautiPHication™: a global approach to facial beauty. *Clin Plast Surg*. 2011 Jul;38(3):347-77, 2011.03.012.

Websites

- Physical attractiveness. Home page. Available from URL https://en.wikipedia.org/wiki/Physical_attractiveness (Accessed 19 Oct 2016.)
- Gary Meisner. Golden Ratio Overview. Home Page. Available from URL <https://www.goldennumber.net/golden-ratio> (Accessed 19 Oct 2016.)
- Gary Meisner. Facial analysis and the beauty mask. Home page. Available from URL <http://www.goldennumber.net/beauty/> (Accessed 19 Oct 2016.)

Note: You should also consult the online support module for this subject for additional information and/or resource suggestions

Curriculum Mapping:**CD VI: Management of Lower Limb Venous Disease**

This subject covers an advanced procedural dermatological topic treating two components, of venous disease, Phlebology and Microsclerotherapy.

Subject Learning Outcome	Curriculum Learning Outcome
SLO 1: Demonstrate a depth of knowledge and understanding of the theoretical background to the management of lower limb venous disease	CLOD 1 - 6
SLO 2: Diagnose common venous diseases/ presentations	CLOD 1, 3
SLO 3: Apply commonly used diagnostic techniques to diagnose	CLOD 1, 3, 4
SLO 4: Identify thrombophilia and hypercoagulable states	CLOD 1 - 6
SLO 5: Demonstrate a knowledge of the commonly used sclerosing agents and their application	CLOD 1 – 2, 5 - 6
SLO 6: Select appropriate sclerosing agent dosage (sodium tetradecyl sulfate and polidocanol based)	CLOD 1, 3
SLO 7: Demonstrate a knowledge and understanding of indications, contraindications of ultrasound guided sclerotherapy and endovenous laser ablation	CLOD 1,3,4
SLO 8: Correctly select patients who will benefit from sclerotherapy/microsclerotherapy.	CLOD 1, 3
SLO 9: Demonstrate understanding of appropriate compression therapy	CLOD 5
SLO 10: Demonstrate an understanding of mitigation strategies to minimise/prevent complications arising from sclerotherapy.	CLOD 3 - 4

Course Learning Outcomes

- CLOD 1:** Plan complex cosmetic treatment regimens to address specific conditions and/or criteria in relation to patient's conditions/ presentations
- CLOD 2:** Perform a range of complex cosmetic treatments appropriate to the specific conditions and/or criteria in relation to patient's conditions/presentations.
- CLOD 3:** Critically review patient outcomes in terms of the treatment provided and the overall operation and management of a clinical practice.
- CLOD 4:** Develop, monitor and/or manage further and/or ongoing treatment plans where appropriate.
- CLOD 5:** Demonstrate a wide range of skills in the use of injectable products to achieve maximum cosmesis in cosmetic dermatology patients.
- CLOD 6:** Demonstrate a wide range of skills in the performance of surface active procedures to achieve maximum cosmesis in cosmetic dermatology patients.

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- SLO 1:** Demonstrate a depth of knowledge and understanding of the theoretical background to the management of lower limb venous disease
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