

APLS COURSE MATERIALS - SUMMARY OF 6th EDITION CHANGES (Aust/NZ)

All APLS and PLS courses from August 2017 will be using the Australian and New Zealand 6th edition manual. The manual is based on the recommendations of the International Liaison Committee on Resuscitation 2015, the Australian Resuscitation Council (ARC) and the New Zealand Resuscitation Council (NZRC).

This short overview will guide you through the areas that have been updated in the manual and other teaching materials. It should be noted that it is primarily an international manual so there may be some minor discrepancies between it and local practice. Chapters 18 and 20 were altered to comply with Aust/NZ practice.

**Part 1**

Introduction

**Structured Approach to Paediatric Emergencies (Chapter 2)**

This is a new chapter that includes preparation, communication, teamwork, triage (moved from Appendix G) and pain management (moved from appendix F).

**Human Factors (Chapter 3)**

Moved from appendices (Chapter 25) in 5th edition and expanded

**Part 2**

The seriously Ill Child (Chapters 4-9)

**The child in shock (Chapter 6)**

The algorithm for treatment of anaphylaxis has been amended and includes the option of giving either 10mcg/kg of adrenaline or 150mcg if <6 years of age, 300mcg if 6-12 yrs, and 500mcg if >12 yrs IM.

**The convulsing child (Chapter 9)**

The Status Epilepticus (SE) algorithm has changed a little and no longer mentions IN midazolam. Intranasal Midazolam is mentioned in the text discussing the medications used for SE.

**Part 3**

The Seriously Injured Child (Chapters 10-16)

**Introduction to the seriously injured child (Chapter 10)**

Update on epidemiology with sections on trauma systems and injury prevention (moved from appendix D).

**Structured approach to the seriously injured child (Chapter 11)**

Many changes from the previous edition- important to read.

1. Fluid management of shock in trauma more cautious with initial boluses of 10ml/kg of blood (if available) or warmed saline.
2. Early use of Tranexamic acid 15mg/kg if haemorrhagic shock present.
3. Use of massive transfusion protocol if repeated blood/fluid boluses are required, with use of other blood products to optimise clotting and attention to calcium and avoidance of hypothermia.
4. “Trauma Series of X-rays” no longer routinely advised for all traumas

**The child with traumatic brain injury (Chapter 14)**

The Table with Indications for performing an emergency head CT scan within 1 hour (p143) has been updated.

**The child with injuries to the extremities or spine (Chapter 15)**

Changes to the section on spinal injuries (15.7) –recommended reading. Also read **Chapter 24- Trauma imaging**.

**The burned or scalded child (Chapter 16)**

Fluid therapy is now:

Percentage burn x Weight (kg ) x3 =Total fluid replacement for burn in 24 hours

New section on toxic shock syndrome (16.6)

**Part 4**

Life Support

**Basic life support (chapter 18)**

Universal BLS algorithm included.

Rate of chest compressions now 100-120

If patient is intubated ventilation rate of 10-12 is recommended.

**Support of the Airway and Ventilation (chapters 19, 21)**

Significant changes made with emphasis on ventilation without intubation and more details about RSI. Recommended reading.

NB: Insert oropharyngeal airway either upside down (“usual way”) or right way up.

**Cardiac Arrest (Chapter 20)**

No mention of precordial thump

**Part 5**

Practical Application of APLS (Chapters 21-25)

**Practical procedures: Airway and breathing (Chapter 21)**

New paragraph on Emergency Tracheostomy

Note that the procedure for surgical cricothyroidotomy is different in the manual to the method that is to be taught in the F2F course.

**Practical procedures: Circulation (Chapter 22)**

Use of ultrasound recommended for attempting central venous access.

**Practical procedures: Trauma (Chapter 23)**

23.3 New paragraph on clamshell thoracotomy

23.6 Cervical spine immobilisation- recommended reading as many changes have been made.

Section on helmet removal omitted.

**Imaging in trauma (chapter 24) replaces “Interpreting trauma X-rays” –recommended reading.**

**Principals of safe transfer and retrieval (Chapter 25)**

New paragraph on the differences between static and transport medicine.

**Part 6**

Appendices

**Acid-base balance ( Appendix A )**

This chapter has been extensively rewritten and includes discussion of hyperchloremic acidosis

**Fluid and electrolytes ( Appendix B)**

0.9% Saline replaces 0.45% saline as recommended fluid.

Section on DKA- insulin to be commenced 1-2 hours after commencement of IV fluid therapy.

**Poisoning and envenomation (Appendix E)**

Includes more information about Organophosphate poisoning and button battery ingestion

**Resuscitation of the baby at birth (Appendix F)**

Some sections have been expanded but there is less information about methods of providing ventilation. Use of T-piece device removed.

**Materials and Course Content**

All lectures, skill stations, workshops, scenarios and testing materials are in the process of being updated to ensure consistency with the APLS ANZ 6th edition manual. Please use updated teaching material for the face-to-face course.

**Scenarios**

Changes made to fluid resuscitation and use of Tranexamic acid in trauma scenarios. Minor adjustments made to other scenarios with emphasis shifting away from intubation towards establishing effective ventilation and oxygenation and considering a definitive airway when indicated.

Calculation sheets modified to reflect the different fluid resuscitation in the trauma scenarios and include glucose.