

# AO Trauma Course—Basic Principles of Fracture Management

Nov 11-13 2022

Day 1

(以下敬稱省略)

Time		Duration (minutes)	Activity	Faculty
09:20	09:30	10	Welcome and introduction	陳志輝
09:30	09:40	10	The AO world—from history to lifelong learning	陳志輝
			<b>Module 1: Injury pattern (soft-tissue and bone) and biology of bone healing</b>	<b>Moderator: 陳志輝</b>
09:40	09:55	15	The biology of bone healing	莊昌翰
09:55	10:10	15	Bone healing and the effect of patient factors and injury mechanism on fracture management	陳志輝
10:10	10:25	15	The (soft-tissue) injury—a high priority consideration	楊鎮源
10:25	10:35	10	Moderator summary of Module 1 and Q&A	陳志輝
10:35	10:55	20	COFFEE BREAK	
			<b>Module 2: Stability and biomechanics of bone healing</b>	<b>Moderator: 許晉榮</b>
10:55	11:10	15	Absolute stability: biomechanics, techniques, and fracture healing	陳江山
11:10	11:25	15	Relative stability: biomechanics, techniques, and fracture healing	許晉榮
11:25	11:40	15	The use of plates in fracture fixation	吳佳駿
11:40	11:55	15	The 2018 AO/OTA Fracture and Dislocation Classification Compendium	陳江山
11:55	12:05	10	Moderator summary of Module 2 and Q&A	許晉榮
12:05	13:05	60	<b>Practical exercise 1:</b> Internal fixation with screws and plates—absolute stability • Video: 00139, part 1 (lag screw, position screw, plate with overbending) • Bone model: 0066, 1142 • Power tool (video only)	陳江山 A:曾順承/張皓維 B:楊鎮宇/劉岳青 C:莊昌翰/姚樹鑫 D:王國壽/卓依誠 E:王建順/蔡廷謙 F:劉昌恒/陳岳 G:李宗穎/王偉庭 H:陳建銘/謝尚霖 I:楊睿明/楊超名 J:蘇錦宏/陳逸戎
13:05	14:05	60	LUNCH BREAK	
14:05	15:05	60	<b>Small group discussion 1:</b> Discussion on general principles, classification, concepts of stability, their influence on bone healing, and how to apply implants to achieve appropriate stability	望廳: 陳江山 / 莊昌翰 菁英A廳: 吳佳駿 / 楊鎮源 菁英B廳: 許晉榮 / 莊閔堯
15:05	16:05	60	<b>Practical exercise 2</b> Principle of the internal fixator using the locking compression plate (LCP) • Video: 00112 • Bone model: 1142 • Bone model: 0068 (bridge plating MIPO) • Bone model: 0081 (angular stability in osteoporotic bone)	莊昌翰 A:曾順承/張皓維 B:楊鎮宇/劉岳青 C:王國壽/姚樹鑫 D:蔡秉叡/卓依誠 E:王建順/蔡廷謙 F:劉昌恒/陳岳 G:李宗穎/王偉庭 H:陳建銘/謝尚霖 I:楊睿明/楊超名 J:蘇錦宏/陳逸戎
			<b>Module 3: Principles and management of diaphyseal fractures</b>	<b>Moderator: 吳佳駿</b>
16:05	16:25	20	Principles of diaphyseal fracture management—what is important in treating these fractures?	蘇錦宏
16:25	16:40	15	Intramedullary nailing—to ream or not to ream?	陳岳
16:40	17:00	20	COFFEE BREAK	
17:00	18:00	60	<b>Practical exercise 3: Reamed intramedullary (IM) nailing</b> This nailing exercise can be done for a tibial shaft fracture or a femoral shaft fracture. Please choose only <i>one</i> of the following Tibial shaft fractures—IM nailing with the expert tibial nail (ETN) (with reaming) • Video: 00130 • Bone model: 1149-01 • Bone model: ASLS perspex model	吳佳駿 A:曾順承/張皓維 B:楊鎮宇/劉岳青 C:王國壽/姚樹鑫 D:莊閔堯/卓依誠 E:王建順/蔡廷謙 F:劉昌恒/陳岳 G:李宗穎/王偉庭 H:陳建銘/蔡秉叡 I:楊睿明/楊超名 J:蘇錦宏/陳逸戎
18:00	19:00	60	<b>Updated AO Skills Lab</b> <b>For use in Asia-Pacific, Europe, Middle-East, Africa, and Latin America (except Brazil)</b> A. Torque measurement of bone screws (10) B. Soft-tissue penetration during drilling (10) C. Heat generation during drilling (10) D. Mechanics of bone fractures (10) E. <i>Techniques of reduction, part 1</i> (10)	A:張皓維 / 陳岳 B:陳逸戎 / 王偉庭 C:姚樹鑫 / 蔡廷謙 D:王國壽 / 陳建銘 E:楊超名 / 楊鎮宇
19:00			End of day 1	

Day 2				
Time		Duration (minutes)	Activity	Faculty
08:00	08:05	5	Summary of day 1, plan for day 2	蘇宇平
08:05	08:20	15	Principles of external fixation	蘇宇平
08:20	08:25	5	Moderator summary of Module 3	蘇宇平
08:25	09:25	60	<b>Practical exercise 4:</b> Application of a modular large external fixator Please choose one of the following. Time permitting, a second exercise can be performed (add an extra 30 minutes) • Video: 00116 (tibia modular external fixator) • Bone model: 1111 • Video: 00119 (ankle bridging modular external fixator) • Bone model: PR0535 • Video: 00120 (knee bridging modular external fixator) • Bone model: PR0536	蘇宇平 A:卓依誠 B:柯伯彥 C:姚樹鑫 D:楊睿明 E:蔡廷謙 F:楊鎮宇 G:王偉庭 H:陳建銘 I:楊超名 J:陳逸戎
09:25	09:45	20	COFFEE BREAK	
09:45	10:45	60	<b>Small group discussion 2:</b> Management principles for the treatment of diaphyseal fractures	望廳：周應照 / 徐永衡 菁英A廳：吳柏廷 / 柯伯彥 菁英B廳：游宜勳 / 王建順
			<b>Module 4: Principles and management of articular fractures</b>	<b>Moderator: 莊閔堯</b>
10:45	11:05	20	Principles of articular fracture management—how do they differ from diaphyseal fractures?	吳柏廷
11:05	11:20	15	Forearm fractures—understanding the principles of diaphyseal and articular fractures	唐逸文
11:20	11:35	15	Preoperative planning—rationale and how to do it	王建順
11:35	12:35	60	Preoperative planning—“plan your forearm operation” Templating exercise (in lecture room)	王建順
12:35	13:35	60	LUNCH BREAK	
13:35	14:35	60	<b>Practical exercise 5:</b> Operate your plan—fixation of a 22C1 forearm fracture using the LCP 3.5 (8 and 11 holes) • Bone model: 6501	莊閔堯 A:張皓維 B:柯伯彥 C:姚樹鑫 D:楊睿明 E:蔡廷謙 F:蔡秉叡 G:王偉庭 H:陳建銘 I:楊超名 J:陳逸戎
14:35	14:50	15	The tension band principle	楊睿明
14:50	15:05	15	Introduction to tibial plateau fractures	徐永衡
15:05	15:20	15	Ankle fractures—a systematic approach to their fixation	江昭慶
15:20	15:30	10	Q&A	江昭慶
15:30	15:50	20	Group photo+COFFEE BREAK	
15:50	16:20	30	<b>Practical exercise 6:</b> Tension band wiring of the olecranon • Video: 00132 • Bone model: 6011	游宜勳 A:張皓維 B:柯伯彥 C:姚樹鑫 D:楊睿明 E:蔡廷謙 F:陳岳 G:王偉庭 H:陳建銘 I:楊超名 J:陳逸戎
16:20	17:20	60	<b>Practical exercise 7:</b> Management of a type 44C malleolar fracture • Video: 00138 • Bone model: LD3120	吳柏廷 A:張皓維 B:柯伯彥 C:姚樹鑫 D:楊睿明 E:蔡廷謙 F:陳岳 G:王偉庭 H:陳建銘 I:楊超名 J:陳逸戎
17:20	17:35	15	Femoral neck fractures	張皓維
17:35	17:50	15	Trochanteric fractures	卓依誠
17:50	18:05	15	Distal femoral fractures—management principles	莊昌翰
18:05	18:20	15	Distal radial fractures—which to fix? How to fix?	陳信銓
18:20	18:30	10	Moderator summary of Module 4 and Q&A	陳信銓
18:30	18:35	5	Summary of day 2, plan for day 3	
18:35	19:35	60	<b>Updated AO Skills Lab For use in Asia-Pacific, Europe, Middle-East, Africa, and Latin America (except Brazil)</b>  F. Techniques of reduction, part 2 (10) G. Mechanics of intramedullary fixation (10) H. Mechanics of plate fixation (10) J. Fracture healing and plate fixation (10) K. Damaged implant removal (10)	F:張皓維 / 卓依誠 G:陳逸戎 / 王偉庭 H:姚樹鑫 / 楊超明 J:蔡廷謙 / 陳建銘 K:王國壽 / 劉岳青
19:35			End of day 2	

Day 3				
Time		Duration (minutes)	Activity	Faculty
08:00	09:00	60	<b>Practical exercise 8:</b> This practical exercise can be done with a dynamic hip screw (DHS) or the TFN-Advanced proximal femoral nailing system (TFNA). Please choose only <i>one</i> of the following:  Intramedullary fixation of a trochanteric fracture using the TFN-Advanced proximal femoral nailing system (TFNA) • Video: 20256 • Bone model: LD2220.01	周應照 A:王國壽 B:柯伯彥 C:楊鎮宇 D:楊睿明 E:蔡廷謙 F:陳岳 G:王偉庭 H:陳建銘 I:楊超名 J:陳逸戎
09:00	09:20	20	COFFEE BREAK	
09:20	10:20	60	<b>Small group discussion 3:</b> Management principles for the treatment of articular fractures	望廳：徐永衡 / 蔡秉叡 菁英A廳：周應照 / 游宜勳 菁英B廳：李天慶 / 楊鎮宇
			<b>Module 5: Emergency management, minimally invasive surgery, and special fractures</b>	<b>Moderator: 周應照</b>
10:20	10:30	10	Radiation in the operating room—appropriate use and hazards	李天慶
10:30	10:45	15	Treatment algorithms for the polytrauma patient	唐逸文
10:45	11:00	15	Emergency management of pelvic fractures—a critical skill can save lives	游宜勳
11:00	11:10	10	Minimally invasive osteosynthesis (MIO)—when to use it?	周應照
11:10	11:20	10	Q&A	周應照
11:20	12:20	60	LUNCH BREAK	
12:20	13:20	60	<b>Practical exercise 9:</b> Stabilization of the pelvic ring using a large external fixator • Video: 00122 • Bone model: 4083	蘇宇平 A:張皓維 B:柯伯彥 C:姚樹鑫 D:楊睿明 E:劉岳青 F:王國壽 G:王偉庭 H:陳建銘 I:楊超名 J:陳逸戎
13:20	13:35	15	Management of open fractures	劉岳青
13:35	13:50	15	Fracture-related infection—how to prevent, diagnose, and manage infections	蔡秉叡
13:50	14:05	15	Delayed healing—causes and treatment principles	周應照
14:05	14:20	15	Fixation principles in osteoporotic bone—the geriatric patient	柯伯彥
14:20	14:30	10	Q&A	周應照
14:30	14:50	20	COFFEE BREAK	
14:50	15:50	60	<b>Small group discussion 4:</b> Final case discussion on selected topic: • Polytrauma • Complications • Special fractures, eg, geriatric fractures, osteoporosis, periprosthetic fractures	望廳：蘇宇平 / 劉岳青 菁英A廳：唐逸文 / 楊睿明 菁英B廳：卓依誠 / 陳岳
15:50	16:05	15	Fractures in the growing skeleton—how are they different?	楊鎮宇
16:05	16:15	10	The future of fracture treatment	莊閔堯
16:15	16:30	15	Violation of principles	吳柏廷
16:30	16:40	10	Moderator summary of Module 5 and Q&A	陳志輝
16:40	16:45	5	Closing remarks	陳志輝
16:45			End of the course	