

Course program

# AOVET Course—Principles in Small Animal Fracture Treatment

**16-18 June 2015, León, Spain**

Course Chairman: Aldo Vezzoni  
Fidel San Román Ascaso



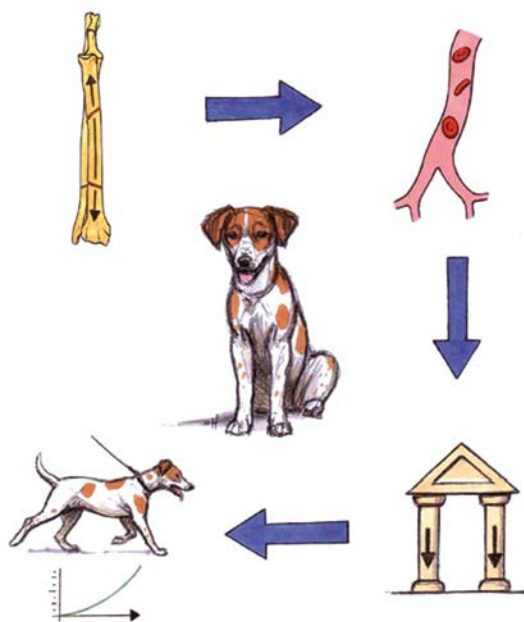
## Value statement

AOVET is committed to improving the quality of patient care through state of the art education, which combines presentations from leading specialists in the field with the practice of surgical skills and techniques on anatomic models. This well-established and proven combination allows the veterinary surgeon to apply theory in practice with the goal of improving his/her treatment techniques for the benefit of the patients and their owners.

## The AO principles of fracture management

Fracture reduction and/or alignment to restore normal anatomical relationships

Early and safe mobilization and rehabilitation of the injured part/body region and the patient as a whole



Preservation of the blood supply to the soft tissues and the bone through a careful approach, gentle reduction and alignment techniques and atraumatic tissue handling

Fracture fixation providing absolute or relative stability as required by the type of fracture, but also influenced by the injured bone, the patient, and the soft tissue condition



AOVET was founded in 1968 in Waldenburg, Switzerland with the help of Dr Fritz Straumann. He believed that the animals should also profit from the progress made in human fracture management. In 1968, several veterinarians met at the AO courses in Davos and decided to initiate veterinary fracture management courses on a worldwide basis. From the beginning, the veterinary fracture management courses involved lectures and practical exercises and, since then, more than 15'000 veterinarians from 45 countries have attended AOVET courses.

## Dear AOVET course participant

We welcome you to this AOVET course and hope that your experience here will encourage you to become more interested in the AO community, specifically in AOVET.

**What is AOVET?** We are veterinarians associated with the AO Foundation and we form one of the organization's four Specialties along with AOCMF, AOSpine and AOTrauma. The goal of all Specialties is to integrate applied and clinical research, education and community development functions into one direction for the benefit of our members, stakeholders and patients.

**How can AOVET help you?** By working together and forming a dynamic group, we improve our ability to focus and leverage our resources, expertise and skills. This leads to better results and more rewards and benefits for our members.

**Why should you join AOVET?** WE NEED YOU! By joining AOVET you will become part of the veterinary family within the AO Foundation. Through this membership you will develop lifelong friendships with leading veterinary specialists in trauma care as well as with key players in human CMF, Spine and Trauma surgery. Being involved with these stimulating groups will help you to expand your "knowledge network" and will provide new opportunities to advance veterinary trauma care.

Yours sincerely,



**Jörg Auer**  
AOVET Chairperson



**Rico Vannini**  
AOVET Chair Education  
Commission

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## Course description

The AOVET Principles Course is focused on the treatment with internal fixation of the most common fractures of small animals, by applying the AO principles.

This course is the cornerstone of the training in the operative treatment of fractures.

## Learning objectives

- Recognition of the role of biology and mechanical aspects in the process of fracture healing.
- Learning and applying the AOVET principles in treating diaphyseal fractures of the appendicular skeleton.
- Acquisition of practical skill in the treatment of diaphyseal fractures through exercises on plastic bones.
- Recognition of the risks and potential intra-operative complications related to the treatment of fractures.

## Course International Chairman



**Aldo Vezzoni**

Dipl ECVS  
Clínica Veterinaria Vezzoni srl Cremona. Italy.

## Course National Chairman



**Fidel San Román Ascaso**

Dipl EVDC  
Prof. Cat. Cirugía Fac. Vet. Madrid.

## Faculty

José Altonaga	Prof. Tit. Cirugía Fac. Vet. León.
Josep de la Fuente	Prof. Asoc. Traumatología Fac. Vet. Autònoma Barcelona.
Mike Farrell	Dipl ECVS. Senior Surgeon of Fitzpatrick Clinic Referrals. United Kingdom.
José Manuel Gonzalo Orden	Prof. Tit. Cirugía. Fac. Vet. León.
Roberto Kostlin	Dipl ECVS. Ex. Prof. Cirugía Fac. Vet Munich. Germany.
Ulrike Matis	Dipl ECVS, Dipl.ACVS. Ex. Profa. Cirugía Fac. Vet Munich. Germany.
Jesús Rodríguez Quirós	Prof. Cont. Fac. Vet. Madrid.
Miguel Ángel Sánchez-Valverde	Prof. Cat. Cirugía. Fac. Vet. Murcia.

## Assistants

Manuel García Gómez	Becario Cirugía Fac. Vet. León.
Fidel San Román-Llorens	PhD, Internship in Fitzpatrick Clinic.

## Course local organization

### **Fundación para el estudio de la Osteosíntesis AO España (sección AOVet)**

C/ Alfonso XII, 38  
28014 Madrid, Spain  
Phone: +34 917 226 643  
Email: egutie10@its.jnj.com  
mvillaab@its.jnj.com

## Tuesday June 16, 2015

08:30 - 09:00 h.	Registration of participants	
09:00 - 09:10 h.	Welcome and presentation of the Course	F. San Román Ascaso

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### Module 1. SCIENCE OF BONES, FRACTURES AND IMPLANTS

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09:10 - 09:20 h.	AO History and Philosophy	A. Vezzoni
09:20 - 09:40 h.	Bone Structure, Vascularity and Function	A. Vezzoni
09:40 - 10:10 h.	Bone Healing Under Stable and Unstable Conditions	J. M. Gonzalo
10:10 - 10:40 h.	Fracture Classification and Biomechanics	M. Farrell
10:40 - 11:00 h.	Coffee Break	

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### Module 2. AOVET Principles

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11:00 - 11:30 h.	Principles of Bone Screw Function: Plate Screw, Position Screw, and Lag Screw	M. Farrell
11:30 - 12:00 h.	Principles and Clinical Application of Cerclage Wiring	M. Farrell
12:00 - 12:30 h.	Principles and Clinical Application of Tension Band Wiring	M. Farrell
12:30 - 13:00 h.	The surgical approach and soft tissue handling	M. A. Sánchez-Valverde
13:00 - 14:00 h.	Lunch	

14:00 - 16:00 h.	<b>Practical Exercises: Lab 1</b> Introduction to instruments, neutral screw, compression screw, cerclage wire	M. Farrell J. M. Gonzalo F. San Román-Llorens
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16:00 - 16:30 h.	Coffee Break	
16:00 - 16:55 h.	Principles and Clinical Application of Dynamic Compression Plate (DCP), Limited Contact-Dynamic Compression Plate (LC-DCP) and Locking Compression Plate (LCP)	A. Vezzoni
16:55 - 17:20 h.	Principles and Clinical Application of Neutralization Plate Stabilization	J. Rodríguez
17:20 - 17:45 h.	Principles and Clinical Application of Intramedullary Fixation	J. de la Fuente
17:45 - 18:10 h.	Principles and Clinical Application of Buttress/Bridge Plate and Plate/Rod Stabilization	A. Vezzoni
18:10 - 18:40 h.	Principles of Joint Fracture Treatment	M. A. Sánchez-Valverde
19:00 h.	Sum-up of the day	

## Wednesday 17 June 2015

08:30 - 10:00 h.	<b>Practical Exercises: Lab 2</b> Femoral oblique fracture fixed with IM pin and cerclage wires. Humeral lateral condyle fracture fixed with compression screw and pin. Transverse radial fracture fixed with compression plate.	M. A. Sánchez-Valverde A. Vezzoni M. García
10:00 - 10:30 h.	Fracture reduction techniques	A. Vezzoni
10:30 - 11:00 h.	Coffee Break	
<b>Module 3.</b> <b>Treatment of diaphyseal fractures</b>		
11:00 - 11:30 h.	Humeral fractures	U. Matis
11:30 - 12:00 h.	Radius-ulna fractures	R. Köstlin
12:00 - 13:00 h.	Fireside discussion	
13:00 - 14:00 h.	Lunch	
14:00 - 16:00 h.	<b>Practical Exercises: Lab 3</b> Butterfly tibial fracture fixed with neutralization plate Comminuted femoral fracture fixed with plate and rod Iliac fracture fixed with plate	U. Matis R. Köstlin F. San Román-Llorens
16:00 - 16:30 h.	Coffee Break	
16:30 - 17:00 h.	Femoral fractures	U. Matis
17:00 - 17:30 h.	Tibia fractures	J. Altonaga
17:30 - 18:30 h.	Fireside discussion	
18:30 - 19:00 h.	Sum-up of the day	

## Thursday 18 June 2015

08:30 - 09:00 h.	Pelvic fractures	U. Matis
09:00 - 09:30 h.	Fractures in growing animals	R. Köstlin
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<b>Modulo 4. Complications</b>		
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09:30 - 10:00 h.	Radiographic Assessment of Fracture Healing	M. Farrell
10:00 - 10:30 h.	Delayed Union and Nonunion	F. San Román Ascaso
10:40 - 11:00 h.	Coffee Break	
11:00 - 11:40 h.	Diagnosis and treatment of osteomyelitis	A. Vezzoni
11:40 - 12:10 h.	Open fractures	J. Rodríguez
12:10 - 12:30 h.	Post-operative management	J. de la Fuente
12:30 - 13:00 h.	Implant Removal	U. Matis
13:00 - 14:00 h.	Lunch	
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14:00 - 15:00 h.	<b>Practical Exercises: Lab 4</b> "Fracture game" Oblique humeral fracture	J. de la Fuente J. Rodríguez J. Altonaga
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15:00 - 15:30 h.	Instrumentation and implants to get started	A. Vezzoni
15:00 - 16:00 h.	Fireside discussion	
16:00 - 16:30 h.	Coffee Break	
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16:30 - 17:30 h.	Sum-up of the Course What did we learned? Participation Certificates and End of the Course	A. Vezzoni U. Matis R. Köstlin M. Farrell
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## Course organization

### AO Foundation

#### AOVET

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Equine Department  
Vetsuisse Faculty University Zürich  
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8057 Zürich, Switzerland  
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[www.aovet.org](http://www.aovet.org)

## Course logistics

### Industrial Partner

DePuySynthes  
Paseo Doce Estrellas, 5-7  
28042 Madrid, Spain  
Phone +34 917 226 643  
Email [egutie10@its.jnj.com](mailto:egutie10@its.jnj.com)  
[www.depuysynthes.com](http://www.depuysynthes.com)

## Course information

### Course fee

AOVET Course—Principles in Small Animal Fracture Treatment.  
Course registration fee: 650 Euros.  
Account Number: ES17 0075 0953 6006 0124 5244  
Banco Popular Español.

### Accreditation

AOVET Course accreditation varies from country to country.

### Evaluation guidelines

All AOVET courses apply the same evaluation process, either ARS (audience response system) or paper and pencil questionnaires. This will help AOVET to ensure that we continue to meet your training needs.

### Intellectual property

Course materials, presentations, and case studies are the intellectual property of the course faculty. All rights are reserved. Check hazards and legal restrictions on [www.aotrauma.org/legal](http://www.aotrauma.org/legal).  
Recording, photographing, or copying of lectures, practical

exercises, case discussions, or any course materials is absolutely forbidden.

### Security

Security check at the entrance of the building. Wearing of a name tag is compulsory during lectures, workshops, and group discussions.

### No insurance

The course organization does not take out insurance to cover any individual against accidents, thefts or other risks.

### Mobile phone use

Mobile phone use is not allowed in the lecture halls and in other rooms during educational activities. Please be considerate of others by turning off your mobile phone.

### Dress code

Casual.

### Further information

Number of participants: 24.

## Course venue

**Venue:**

Universidad de León  
Facultad de Veterinaria  
Campus de Vegazana  
24071 León

**Hotel:**

Hotel AC León San Antonio  
C/ Velázquez, 10  
24005 León.

## Notas

AO Foundation

**AOVET**

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