

ITALIAN FEDERATION OF SPORTS MEDICINE



Italian pre-participation evaluation: laws, protocols, and preventive perspectives

Maurizio Casasco, MD

President, Italian Federation of Sports Medicine (FMSI)

President, European Federation of Sports Medicine Associations (EFSMA)

Member, Executive Committee, International Sports Medicine Federation (FIMS)



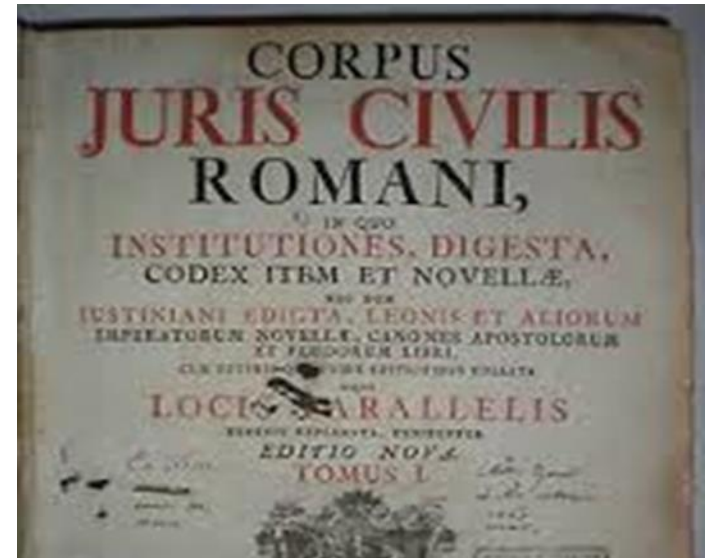
London, January 28th 2025



NATIONAL SCREENING: THE CULTURAL BACKGROUND



Roman Senate



Juvenalis (50-127 AD):
«Orandum est ut sit mens
sana in corpore sano»

LEGISLATION WAS FINALIZED TO PROTECT ROMAN SOCIETY.
THE ROMAN CITIZEN HAD SOCIAL AND LEGAL PRIVILEGES.

HEALTH: A CONSTITUTIONAL RIGHT



- «The Republic recognizes and guarantees the **inviolable rights** of the person, both as an individual and in social groups where human personality is expressed...»
(Art. 2 – Italian Constitution)
- «The Republic safeguards **health** as a fundamental right of the individual and as a collective interest, and guarantees free care to the indigent...»
(Art. 32 – Italian Constitution)
- «The Republic recognizes the educational, social and psychophysical well-being promotion value of **sporting activity** in all its forms.»
(Art 33 - Italian Constitution)

1957: FIRST SCHOOL OF SPECIALIZATION IN SPORTS MEDICINE IN THE WORLD



In 1957 Prof. Rodolfo Margaria founded the first school of specialization in Sports Medicine in the world, at the University of Milan



“Exercise follows subjective criteria and, as with drugs, should be prescribed at the recommended dose, because it can or cannot be of benefit following its use or abuse!”

(R. Margaria – Milan, 1957)

The specialization in Sports Medicine, 4 years following MD degree, was recognized in Europe (EU Directive 2005/36/CE) and published in official journal of the Commission Delegated Decision (EU) 2024/1395

MAIN ITALIAN LAWS REGARDING SPORTS MEDICINE



Law 18.02.1982 : Rules for Health Protection of **Competitive Sporting Activity**

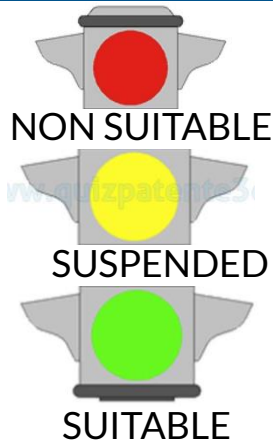
Law 24.04.2013 : Rules (protocols) for Certification of **Non Competitive Sporting Activity** (Clinical evaluation + EKG)

Law 91/1981 - Law 13.03.1995 : Rules for Health Protection of Professional Sports.

The professional athlete needs a **Competitive Sporting license** (Law 18.02.1982) and further scrutiny depending upon the specific sport. It is the Club doctor's responsibility (specialist in sports medicine) to guarantee the health protection of the athlete.

Law 04.03.1993 : Rules for a **Competitive Sporting Activity** license to **people with disabilities** (depending upon the type and grade of disability)

COMPETITIVE SPORTS LICENSE: OBLIGATION AND DEFINITION OF COMPETITIVE ACTIVITY DM 18.2.1982



PREVENTIVE OBLIGATION TO VERIFY PERIODICALLY THE ELIGIBILITY TO PRACTICE SPORTS – A PUBLIC VALUE SIMILAR TO A DRIVER'S LICENSE

- . *Certifying Physician* > the examination protocol is granted exclusively by a **Physician specialised in Sports Medicine**
- . *Subjects required to comply*>only members of the **National Sports Federations, according to age.** (e.g. swimming from 8 years old, rugby from 12 years old, etc.)
- . *Examination Protocol*> national protocol, established by law, with variants according to the different sport disciplines.

VALUE OF SPORTS MEDICAL VISIT AS PRIMARY PREVENTION



High value of sports medical fitness visit as a primary prevention intervention, because of:

- Early diagnosis of a major disease, with a remarkable **reduction of sudden deaths**.
- Finding of **possible risk factors** or of minor diseases.
- Important **epidemiological data acquisition**.
- Specific diagnostic preventive data (an example: screening EKG)
- Added value > It's the **first preventive screening for the population** (e. g. EKG)
- Formulation of **scientific guide-lines by FMSI**, such as in:

Cardiology
Pneumology
Allergology
Endocrinology

Oncology
Concussion
Epilepsy



COMPETITIVE SPORTS CERTIFICATION: EXAMINATION PROTOCOL



The protocol for granting the competitive sports certification must include:

- Anamnesis;
- Anthropometric measurements: weight and height;
- Physical examination with particular attention to organ systems specifically involved with the requested sports discipline;
- Visual acuity examination;
- Color vision examination (only for motorsports);
- Urinalysis;
- Resting electrocardiogram;
- Stress electrocardiogram;
- Spirometry with detection of the following parameters:
 - Vital capacity (VC)
 - Forced Expiratory Volume (FEV1);
 - Tiffeneau index (FEV1/VC);
 - Maximal voluntary ventilation (MVV).

For some sports (e.g. alpine skiing, boxing, motorsports, etc.) specific additional medical assessments are requested depending on the disciplines: neurological examination and electroencephalography, ear, nose and throat examination, audiometry test, eye examination, pelvic ultrasound, breast ultrasound.

COMPETITIVE SPORTS CERTIFICATION: EXAMINATION PROTOCOL



- The certification is **specific to each sports or practiced discipline**, because it estimates the sports risk factor **both in training and competition** (e.g. An athlete can be eligible for swimming but not for rugby)
- The examination foresees that **all scrutiny is performed simultaneously**, and the documentation must be retained for at least 5 years by the physician and the sports team
- The duration of the certification is usually annual, the certifying physician can **reduce its duration**
- The certifying physician can request **additional scrutiny**
- At the end of the procedure, during which the certifying physician must inform the athlete of possible health risks, athletes can be evaluated as:
 - a) eligible
 - b) non eligible
 - c) temporarily non eligible

In case of “permanent” non eligibility, the athlete, the relevant sanitary institute and the sports society must be informed, with respect to the privacy norms (no diagnosis enclosed).

Athletes can file an appeal within 30 days to the Regional Commission of Appeal.

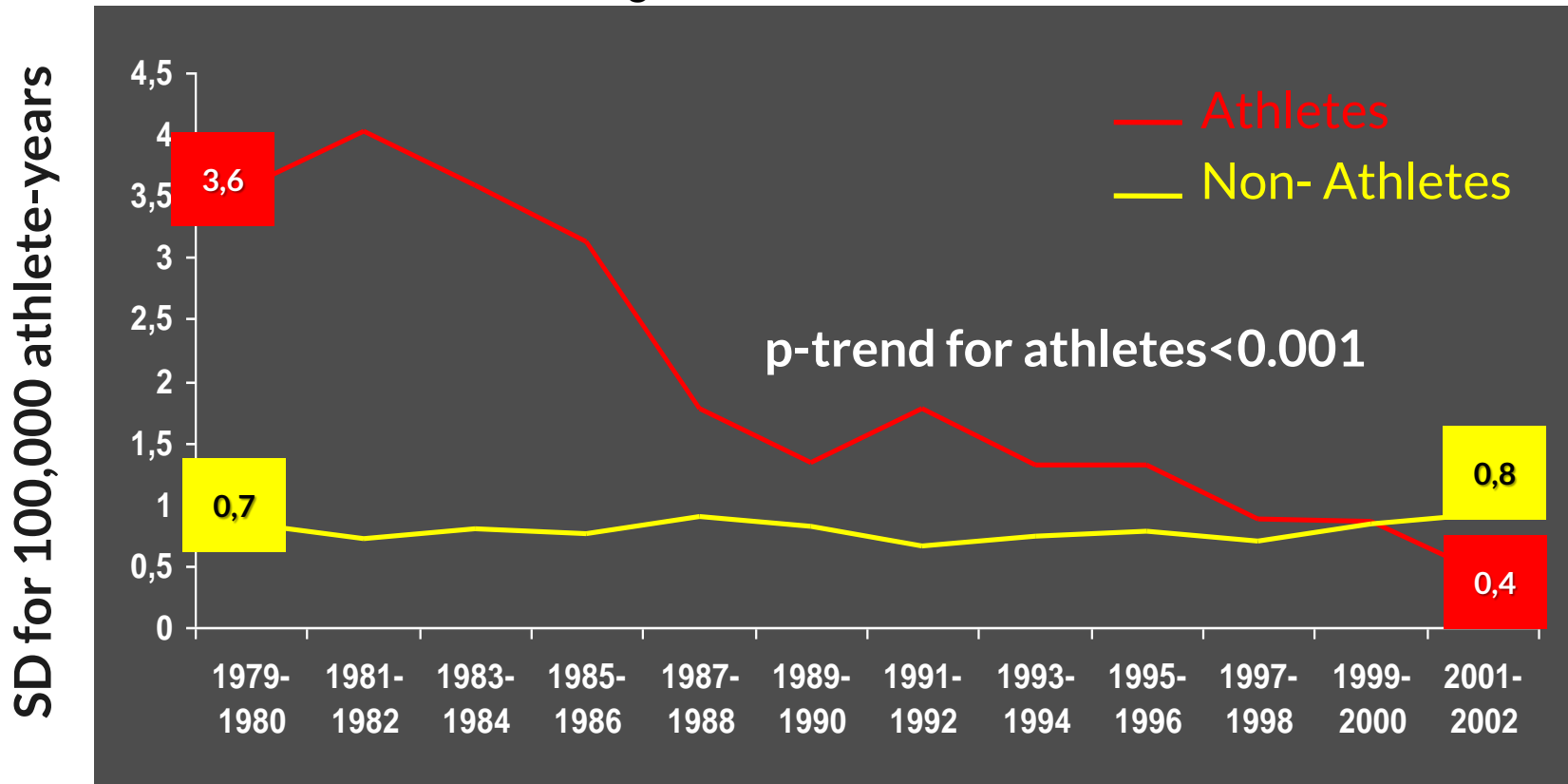
The sports medical examination is officially recognized by the National Health System (Essential Levels of Care) and is provided free of charge to minors and to people with disabilities.

A cost today, a saving tomorrow!

EFFICACY OF SCREENING FOR THE REDUCTION OF SCDs IN YOUNG ATHLETES



Ratio of yearly incidence of sudden cardiac death between Athletes undergoing screening and unscreened Non-Athletes



Corrado et al. JAMA 2006;296:1593

Since the start of the compulsory screening (Law 1982) and of the COCIS Heart Guidelines (1983) the risk of sudden cardiac death drops by 89%, lower than in Non-Athletes.

CONCLUSIONS



- Athletes, members of a sports federation, must legally undergo a **pre-participation examination** (Competitive Sport License) according to specific protocols provided for by law, that are specific for each sport (sport's risk factors evaluation both in training and competition)
- **Certification** is compulsory and is a **PREVENTION TOOL**, not only for sudden cardiac death, but also for the identification of possible risk factors and the assessment of minor pathologies that increase medical costs if left untreated
- It represents an important pre-participation screening of the national population which also allows us to obtain important epidemiological data
- Common Guidelines were made.
- Savings on national healthcare service costs as well as insurance costs.

ITALIAN FEDERATION OF SPORTS MEDICINE



THANK YOU

Maurizio Casasco, MD

presidente@fmsi.it



London, January 28th 2025

