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Training first aid rescuers at workplace during the COVID-19 pandemic in Italy: challenges and opportunities

La formazione dei lavoratori designati al primo soccorso sul luogo di lavoro durante la pandemia di COVID-19 in Italia: sfide e opportunità

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Out-of-Hospital Cardiac arrest (OHCA) is a major cause of mortality in the general population, even if the cardiac arrest is promptly recognized, appropriate Cardiopulmonary Resuscitation (CPR) is done on site by laypeople, and rapid defibrillation is followed by Emergency Medical Services.¹

The majority of the adult population spends most of their time at workplace. Therefore, occupational settings have been identified as instrumental to shed basics of cardiopulmonary resuscitation (CPR).^{1,2} Since the late Nineties, Italian legal framework has enforced as mandatory the appointment of an appropriate number of employees as first-aiders (Law Decree N. 81, 09.04.2008, art. 45), specifically requiring their training in first aid manoeuvres and in basic CPR (Inter-Ministerial Decree N. 388, released on 15.07.2003). Interestingly, some studies have showed a frightening increased rate of OHCA during the ongoing COVID-19 pandemic.² The reasons remain unclear, but reasonably include both direct (i.e., cardiotoxic effect of SARS-CoV-2 infection) and indirect factors, such as diagnostic delay, increasing difficulties in receiving appropriate medical treatment because of saturation of healthcare resources, or simply hesitance towards healthcare services as feared to be 'at risk' for SARS-CoV-2 in-

fection.² Not coincidentally, the recent Circular of the Italian Ministry of Health released on 07.01.2021 has established that First Aid training courses must retain their priority, being carried out on despite the COVID-19 pandemic.

On the one hand, some interpretations of legal requirements have suggested that theoretical sessions of First Aid Courses may be performed as online training (Consultation of 01.10.2012; Ministry of Labour and Social Policies; Decree of the President of the Council

of Ministers of 03.12.2020), reserving in-person training for hands-on training only. Interestingly, a certain base of evidence has stressed that non-frontal formation courses (e.g., Internet-based tutorials) may be suitable alternative to more conventional CPR training when dealing with the theoretical issues, both in terms of skills acquisition and retention.³ However, Italian legal framework explicitly rules out such option (Annex 5, Agreement of the Conference State-Regions of 07.07.2016).

On the other hand, both the Circular of the Ministry of Health of 23.06.2020, and European Resuscitation Council guidelines³ have issued specific requirements for training courses to be held 'in presence' that are much severe than those reported by the aforementioned Agreement of the Conference State-Regions of 07.07.2016 (i.e., no more than 35 trainees per session). Briefly, preventive measures may be summarized both administrative and environmental ones. Examples of administrative measures include reducing the number of trainees (i.e., no more than 6 candidates for hands-on training) and appropriate use of personal protective equipment (PPE) (i.e., surgi-



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cal mask, or even Filtering Facepiece 2 – FFP2, gloves, eye and face protection, and long-sleeved gown by both teachers and learners, when hands-on training happens without sufficient distance). Environmental measures are represented by:

1. choosing as site for training only large rooms with sufficient natural air ventilation;
2. cleaning manikins and equipment following every single training session with disinfectant compatible with the materials;
3. avoiding or limiting any formal/informal break.³

It is worthy to note that not only formation settings, but also their content should be specifically tailored on the requirements of the ongoing pandemic.^{4,5} Firstly, lay rescuers, including «designed first aid workers», should protect themselves from the risk of airborne spread of the virus during chest compressions by means of proper PPEs, and placing a cloth/towel over the person's mouth and nose before performing chest compressions and public-access defibrillation. Second, First Aiders should prioritize hands-only CPR and subsequent on-site defibrillation on airway and ventilation interventions.⁶⁻⁸ However, automated external defibrillators (AEDs) are not currently available in all Italian workplaces, as neither the Law Decree N. 81/2008 nor the Decree N. 388/2003 require their mandatory

implementation. This may make the international CPR guidelines for 'lay rescuers' in times of pandemic somewhat inconsistent with Italian requirements for First Aiders on the workplaces. In addition, the mandatory list of items contemplated in the first aid box as required by Decree N. 388 is inadequate as it should include new first aid equipments and resources.^{5,9}

Finally, also the training programmes

provided by Decree N. 388 for the designated occupational first aiders should be reviewed in the light of the current pandemic.^{5,10}

In conclusion, the updating of the Inter-Ministerial Decree 388/03 would be desirable, by introducing an interim rule to regulate first aid activities at workplace during the COVID-19 pandemic.

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