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Letter to the Editor

The impact of health worker gap in Italy on the COVID-19 pandemic. A good time to improve the quality of the Italian National Health System (NHS)?

As of April 15, 2020, 165,155 patients have been diagnosed with the SARS-CoV-2 virus in Italy, and 21,645 have died. Lombardy, which has one of the most advanced healthcare systems in Europe (and home of one the best critical care schools in the world), was stretched due to the suddenly increasing number of critical patients [1] to its limits and had to increase the number of intensive care unit (ICU) beds from 724 to 1,600. This unexpected (and unpredictable) situation dramatically disclosed and further exacerbated the structural problems of the Italian National Health System (NHS) as reported in several recent papers. [2,3]

Some of the contingent actions taken included redeployment of personnel (e.g. from anesthesiology to intensive care), hiring of new doctors (e.g. from Cuba and Albania), early graduation for doctors and nurses (with waiver of the national licensing examination for doctors, now part of their medical degree), hiring of non-specialized doctors to cover on-call duties and measures to increase the number of hours worked by medical and non-medical personnel. These appeared to be somewhat of help in the short-term, but to a critical eye, they only underlined the already existing issues of the NHS. [2,3]

Unfortunately, it cannot be excluded that the shortage of NHS personnel and resources as well as of the number of beds, which are the result of a wicked political agenda over the past few years, [4] represent a variable that played a major role in the high overall mortality recently seen in Italy.

Italian doctors from different specialties working abroad have now come together with a telemedical project (“ViciniVinciamo”, translated “CloseWeWin” – available at www.davinciasalute.com) to provide free online consultation to the countrymen forced to stay at home during this crisis. Although this attempt constitutes a pragmatic approach for an effective and quick solution to the emergency, still it is far from providing a systematic solution to the chronic problems of NHS, which have recently been identified by a representative of Italian doctors who work or have worked abroad. [5] Some of the issues the group agreed upon have been mentioned in recent letters published by the Lancet. [2,3] In the present perspective, we try to offer a synthetic overview of the main concerns along with measures to possibly correct them.

- Training. Meritocracy and Career progression. These are the main reasons for young Italian doctors to emigrate - in spite of highest medical education standards. Post-graduate training often lacks of high and uniform standards, and the frequent absence of a clear career path and salary progression based on merit is cause of frustration. Improving meritocracy is mandatory to attract professionals who reach not only for better working conditions, but also for a more productive environment for their family.

- Deficiency of acknowledgement of the acquired competences. Too often, unfortunately, Italian doctors who have acquired a high level of competence abroad struggle to return back to their country. The reasons for this are lack of advanced career positions and even, in some cases, ostracisms at many levels. In addition, experience collected abroad may not be recognized, and bureaucracy is able to significantly slow down and frustrate the attempts to repatriate. Sadly, these situations can reach very dramatic edges, like in the case of Dr. Luana Ricca. She had to face a loss of professional identity upon return to Italy after being a renowned laparotomic surgeon in France. We cannot draw any conclusions on what caused her suicide, but she had been certainly very vocal about the struggle of returning home. [6] Concentrating government efforts to employ repatriates at career level they deserve and enforce their positions might substantially empower medical teams by increasing their horizons and added knowledge.

- Need for improving the recruitment criteria. A paradigm shift toward the acknowledgment of the competences is mandatory. The current system led in some cases to irregularities, also resulting in disciplinary actions. [7] Unfortunately, the recruitment process is corroded by legal disputes, often rooted in a sense of injustice derived from political interference. A revision of the deal between Politics and NHS towards bidirectional fruitful exchange and support might feature defined competences, which will in turn yield a clearer definition of the pathways for a career based exclusively on merit.

- Need for a systematic digitalization of the NHS. Although some efforts have been done in the recent past in this sense, a gap with other advanced countries still exists. Beyond comparisons with other countries, improving digitalization means higher time efficiency, which does in turn free up doctors from unnecessary paper-based administrative tasks which they did not get a medical degree for. In addition, and importantly, digitalization reduces human error and allows the impartial evaluation of healthcare-related outcomes as well as the improvement of paper-based documentation.

- Relatively fixed hospital reimbursements discourage implementation of new technologies, particularly in district hospitals. Changes in this direction would encourage Italian doctors with international experience to return (or for non-Italians to come), and at the same time advancements would have to rely on the ability of the local physicians rather than on non-medical parameters.

- Medical lawsuits against doctors (95% of which end in acquittal) represent a scarecrow for MDs, leading to the practice of “defensive medicine”, with estimated costs of 10 billions/year, and high insurance premiums. The NHS should become accountable for systemic failures leading to malpractice, and indemnify its workers. It appears that in order to obtain clarification on a
complication or a patient’s death is inevitable the recourse to the
magistrates and the criminal law. Non-criminal injuries should
become competence of special local medical board committees
instead of the tribunals.
- Inadequate funding of the Italian NHS: It decreased by at least
25 billion euros over the period 2010–2015. Even though in the
last few years there were attempts to improve the situation, the
ratio of healthcare spending over gross domestic product is much
lower for Italy than for other advanced economies: Italy spends
for healthcare 68% less than Germany, 47% less than France and
19% less than the UK. [4]

In times like the present, Italian doctors working abroad wish to
share knowledge and see their country, once the emergency is over,
giving a strong response and addressing comprehensively the root
of the problems that have led to the current situation. The im-
plementation of laws and practices resulting in better funding and
modernization of the NHS, will also add to a cultural shift as well as
to the improvement of doctors’ working conditions and salary. This
crisis might represent a great opportunity for positive changes. It
is now time that Politics play its part.

Financial disclosure

None.

Conflicts of interest

None.

References

[1] Grasselli G, Pesenti A, Cecconi M. Critical care utilization for the COVID-19 out-
brake in Lombardy, Italy. J Am Med Assoc 2020, http://dx.doi.org/10.1001/jama.
2020.4031, published online March 13.
[2] La Colla L. Health worker gap in Italy: the untold truth. Lancet 2019;394:561–2.
[3] La Colla L. Challenges faced by the Italian medical workforce: author’s reply.
Lancet 2020:395:e57.
[4] La spesa sanitaria pubblica e privata é l’8.9% del Pil. https://www.infodata.
ilsole24ore.com/2018/12/08/la-spesa-sanitaria-pubblica-privata-89-del-pil/,
[Accessed 15 April 2020].
[5] https://www.radioradicale.it/scheda/585933/italiani-allestero-intelligenze-
enza-confini, [Accessed 15 April 2020].
[6] White C, Ricca Luana. Liver surgeon and researcher whose suicide prompted
a campaign to overhaul career progression in medicine in Italy. Br Med J
2016;352:i1767.
[7] Concorsi su misura, le università ignorano le sentenze che ordinano di rifarli
daccapo. https://www.repubblica.it/scuola/2018/05/07/news/concorsi_falsi_i_giudiciordinano_le_universita_l_snobbano-195740294/, [Accessed 15 April
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