CORRESPONDENCE







© The Author(s). 2019 Open Access This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The Creative Commons Public Domain Dedication waiver (http://creativecommons.org/publicdomain/zero/1.0/) applies to the data made available in this article, unless otherwise stated.

 $16.F_{11}$ Е. I. I. concellent and the conception of the conce Ų

· 1 ·····;2) ·····;2) ··· , ., ., **F** . , , , , , . , . , . , . , . , . , i k 1 - i i i i , , k - - L. , - .. . hy ., .. http:// h.1., ... , the second sec

-, -, -1 -M , . . , . . , Ε. U

Equipment management in resource-limited countries A L. L. .., . . , L. T. . L. L. L. L. $\mathbf{E}_{\mathbf{M}} = \mathbf{E}_{\mathbf{M}} + \mathbf{E}_{\mathbf{M}} +$, - 11, 1, -1, 1, 1, -1, -1, -1, -1 l, l, l, l, ,, LL., - - · ., -, L/, L., L - · L

to be a second sec and the second stand the ly factory -1., . . . , I. . , I., CA., / 14

Management of laboratory equipment

1. j . . 1 . . , · · · · K ~. . . , ~ . . . , ~ . . . , K . ~ . (ц, ц, r CA., ____, л. с. с. - - ,) . , . the second the second have the I be big in the here has a set of the here is the here of the here 11.

Quality management systems in Central Asian countries

, M , L ,
M. M. Marting W. Million () , in the second s
$\begin{array}{c} \mathbf{L} \\ $
(MOH) CA CA CA
(M, N, N, M,
M . (NI M)

CA C D ((,)-31,)-3 -303.4 .1(. 6 .)-312.7(.)-31

- - L · · · · •

Laboratory equipment management (EM) in CARs

- -4 . . 11--11. 1 -

Ι , .L.**:** 11general laboratory equipment _____ laboratory instrumentation. G , to, he alter a second have a , . **,** 1 . . . -, (, <mark>2).</mark> , Li, Li, Li, **I**, **G**, L - The character of the contracter of the contrac · ·,,, ·. · , · ! · · · · · · · · · ! · ! · L. 1 B, M 13-A 21 ... , CA

-

Planning for acquisition and implementation of new equipment

 $C_{L,L}$, \ldots , \ldots , CA , \ldots , , L. . .. MOH, -1 -11- . . and a stand a st . ₁ L. -• et a construction to the top the 1. ·, . A , . . ,

Equipment validation plan

A i_{j} $i_$

Decommissioning of equipment

A. (1, 1) M 13-A 21 (1, 1) (1, 1) (1, 2)

- 1. A decision can be made within Ministries of Health that quality assurance of laboratory services must be improved and a national or international quality standard adopted.
- 2. A Laboratory Quality Unit can be established within

- Ahmedov M, Azimov R, Mutalova Z, Huseynov S, Tsoyi E, Rechel B. Uzbekistan: health system review. Health Systems in Transition. 2014;16(5):1–137.
- Report of the WHO Regional meeting on strengthening laboratory capacities to support national programmes in eastern Europe and central Asia 17–18 June 2014, Copenhagen, Denmark.
- 8. Better labs for better health. Second Partners' Meeting, December 2016 Report. World Health Organization Europe.
- Laboratory mentoring for quality systems implementation under the Better Labs for Better Health initiative: activities from January–April 2017. http://www.euro.who.int/en/health-topics/Health-systems/laboratoryservices/news/2017/06/laboratory-mentoring-for-quality-systemsimplementation-under-the-better-labs-for-better-health-initiative-activitiesfrom-januaryapril-2017 (accessed 7, May 2018).
- Quality tools and training. World Health Organization Europe. http://www. euro.who.int/en/health-topics/Health-systems/laboratory-services/qualityand-biosafety/quality-tools-and-training (accessed 7, May 2018).
- Martin R, Barnhart S. Global laboratory systems development: needs and approaches. Infect Dis Clin N Amer. 2011;25(3):677–91.
- 12. John N. Nkengasong, Strengthening laboratory services and systems in resource-poor countries. Am J Clin Pathol. 2009;131:774.
- International Organization for Standardization. ISO 17025: General requirements for the competence of testing and calibration laboratories. 2005. Available from: http://www.iso.org/iso/en/CatalogueDetailPage.CatalogueDetail?CSNUMBER= 26301 (accessed 22, Oct 2018).
- 14. International Organization for Standardization. ISO 15189: Medical laboratories