Organisation and delivery of healthcare for HIV/TB coinfected patients in Europe

M Mansfeld, A. Skrahina, AM Panteleev, JM Miro, I Zeltina, S Tetradov, A Mocroft, H Furrer, A Grzeszczuk, L Shepherd, N Bolokadze, JD Lundgren, A Matteelli, FA Post, O Kirk, DN Podlekareva,

and the TB:HIV study in EuroCoord

The 14th European AIDS Conference 2013

Background

TB/HIV coinfected patients in Eastern Europe:

- Mortality rate one of the worlds highest
- Mortality rate 3-5 fold higher than in Western Europe
- Majority of deaths are TB-related

Regional differences in mortality across Europe can only partially be explained by factors such as:

- MDR TB, IDU, use of non-RHZ based regimens, non-use of cART, low CD_4 cell count

WHO global tuberculosis report 2012
DN Podlekareva el.al. ERJ, June 2013
DN Podlekareva et al. AIDS 2009

Objective

- To analyse differences in the organisation and availability of TB/HIV healthcare and medicines across hospitals in Eastern Europe and Western Europe

Methods

- Cross sectional design
- Self-reported survey (online)
- All European HIV and TB hospitals/clinics within the TB:HIV study* invited to complete the questionnaire, Spring 2013
- Questions related to the organisation and availability of HIV and TB healthcare, medicines and the clinical management strategies for TB/HIV coinfected patients
- Descriptive statistics performed for comparisons between Eastern and Western Europe
- Two sided Fisher exact test for association

*Tuberculosis among HIV-positive Patients: an International Prospective Observational study: www.chip.dk

Results

Response rate = 85%

41 out of 48 European hospitals/clinics responded (treating > 1000 TB/HIV coinfected patients)

Clinics/hospitals responding:

- Eastern Europe (20)

Belarus (5), Estonia(1), Georgia(1), Latvia(2), Lithuania(1); Poland(4), Romania(1), Russia(4), Ukraine(1)

- Western Europe (21)

Belgium(1), Denmark(1), France(1), Italy(7), Spain(2), Switzerland(1), UK(8)

Non-responding clinics/hospitals:

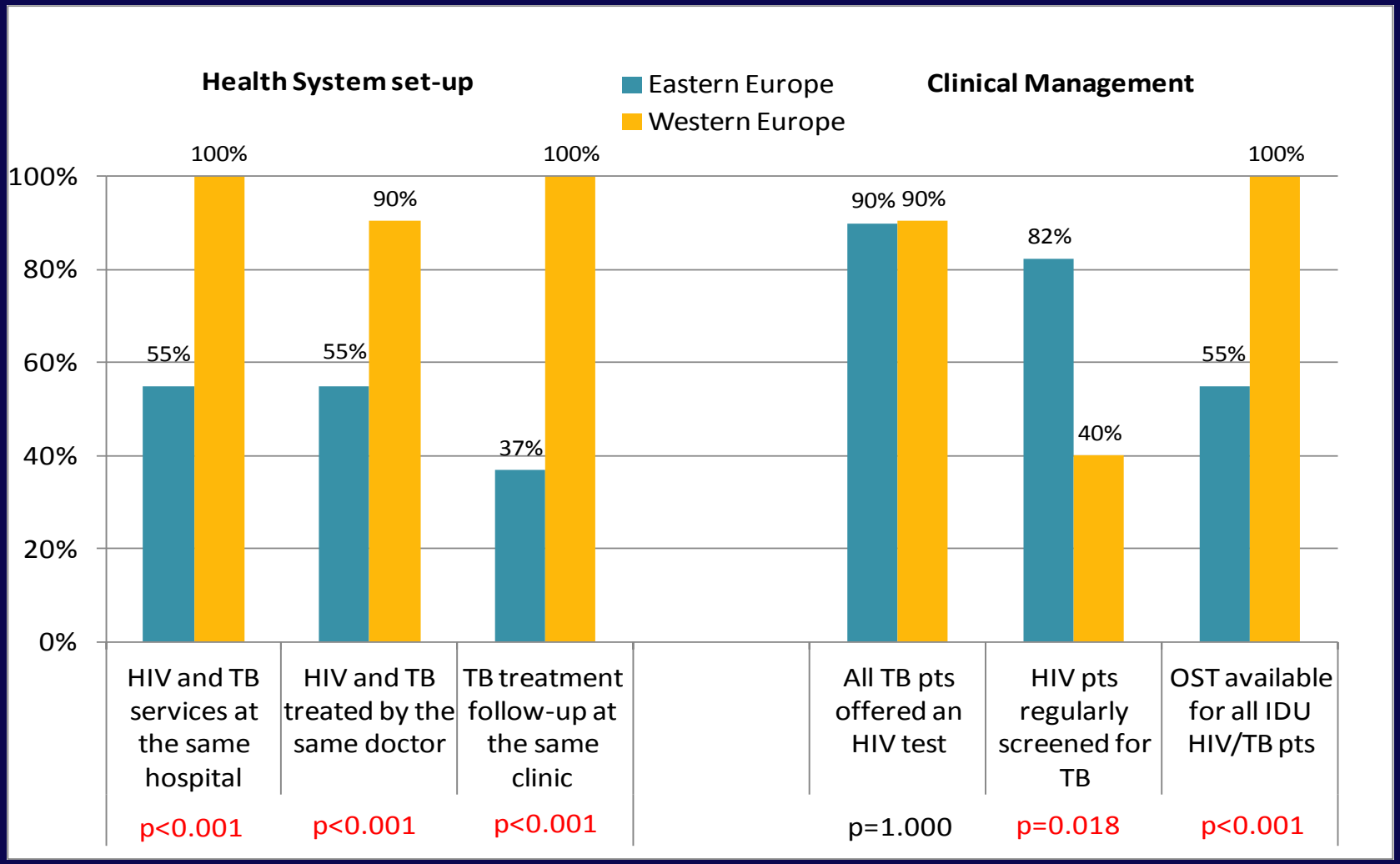
- Eastern Europe (4)

Belarus (1), Georgia (1), Russia (2)

- Western Europe (3)

Spain (2), UK(1)

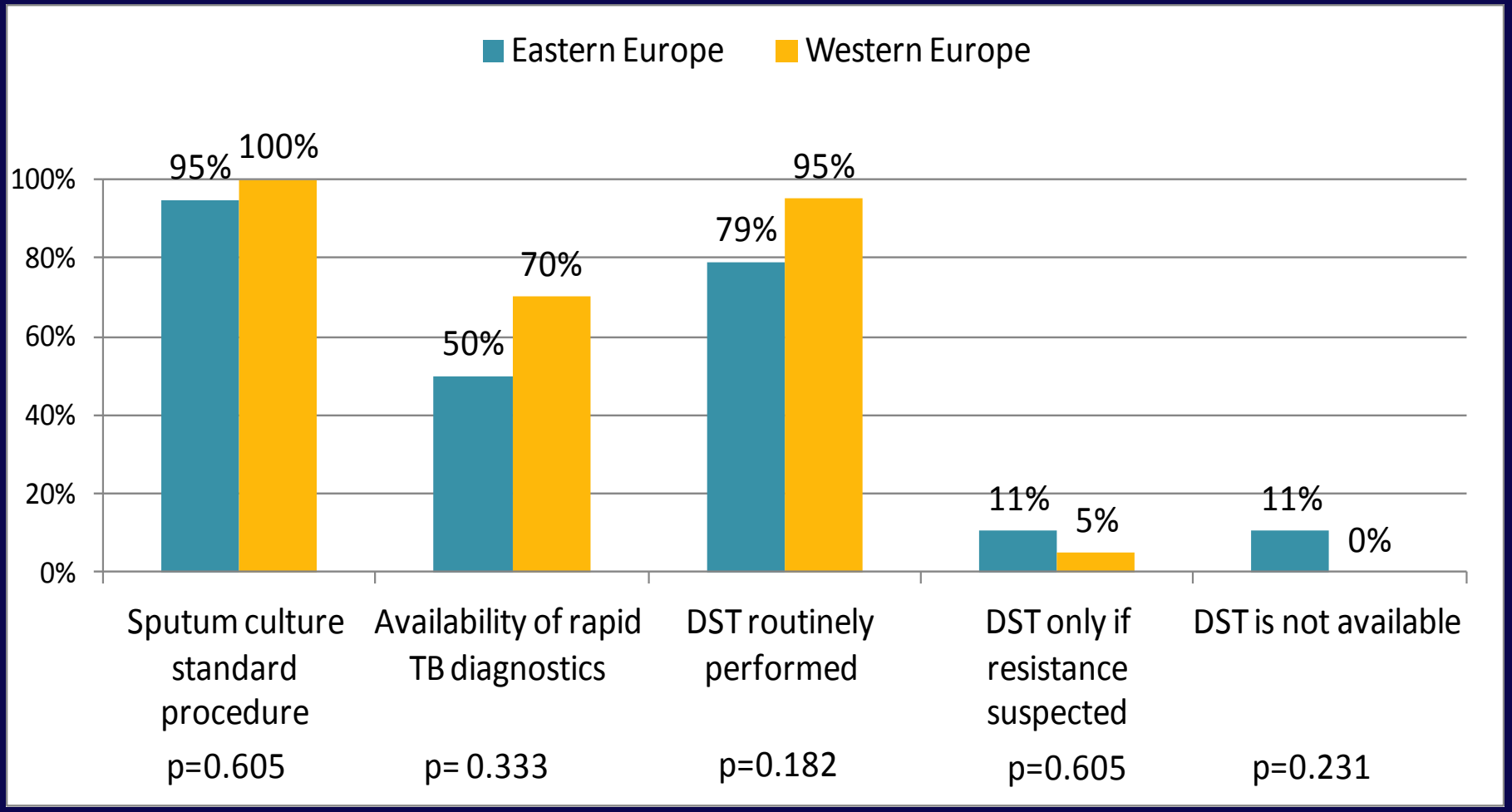
Reported health system organisation and integration of care aspects



OST – opiate substitution therapy; IDU – injecting drug use

TB:HIV an international prospective observational study

Reported clinical management strategies
TB diagnostic procedures



DST= drug susceptibility testing

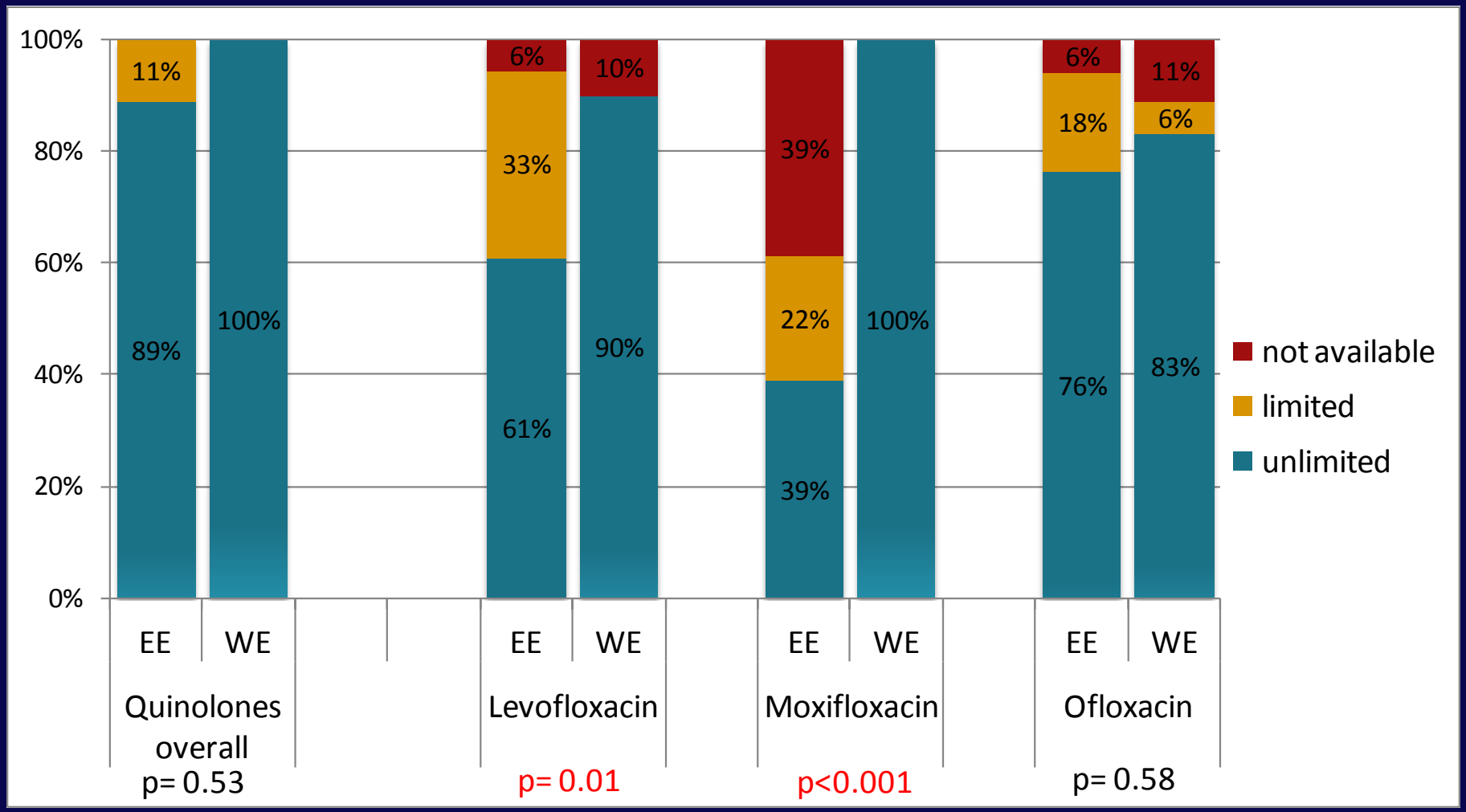
TB:HIV an international prospective observational study

Reported clinical management strategies
Anti-TB therapy for TB/HIV patients

	EE	WE	p†
Use DOT minimum for intensive phase of TB therapy for all patients	94% (16/17)	20% (4/20)	<0.001**
Rifampicin generally used as part of the initial anti-TB treatment	100% (19/19)	100% (20/20)	1.000
2RHZE + 4RH Standard TB treatment for TB/HIV patients	75% (14/19)	95% (19/20)	0.091
2RHZE + 7RH Standard TB treatment for TB/HIV patients	16% (3/19)	5% (1/20)	0.341
Rifabutin available unlimited	17% (3/18)	95% (19/20)	<0.001**

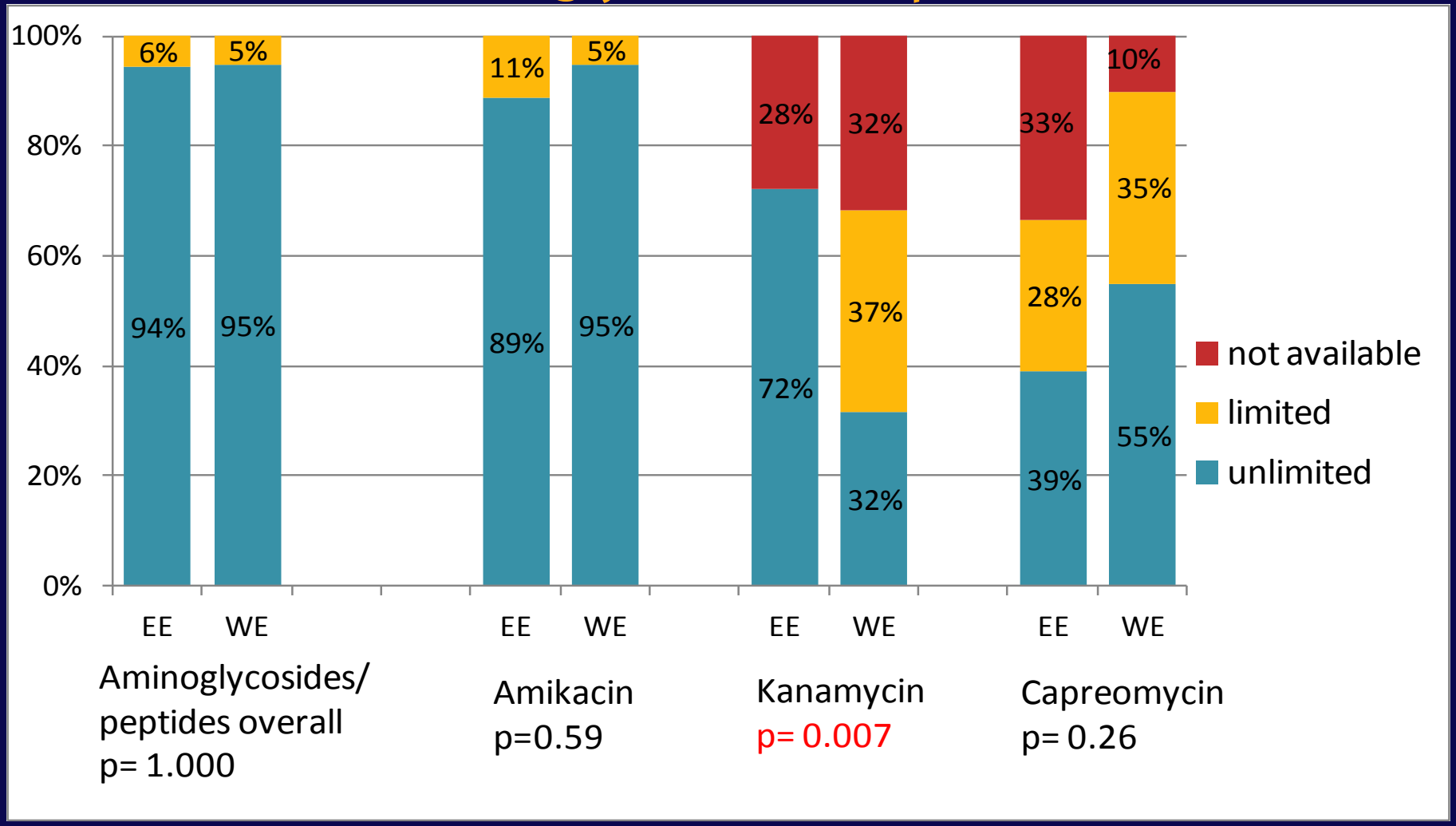
† Two sided Fisher exact test for association; 2RHZE = 2 months of rifampicin, isoniazid, pyrazinamide, ethambutol 4RH= 4 months of rifampicin, isoniazid; 7RH= 7 months of rifampicin, isoniazid

Reported access to 2nd line anti-TB drugs
Quinolones

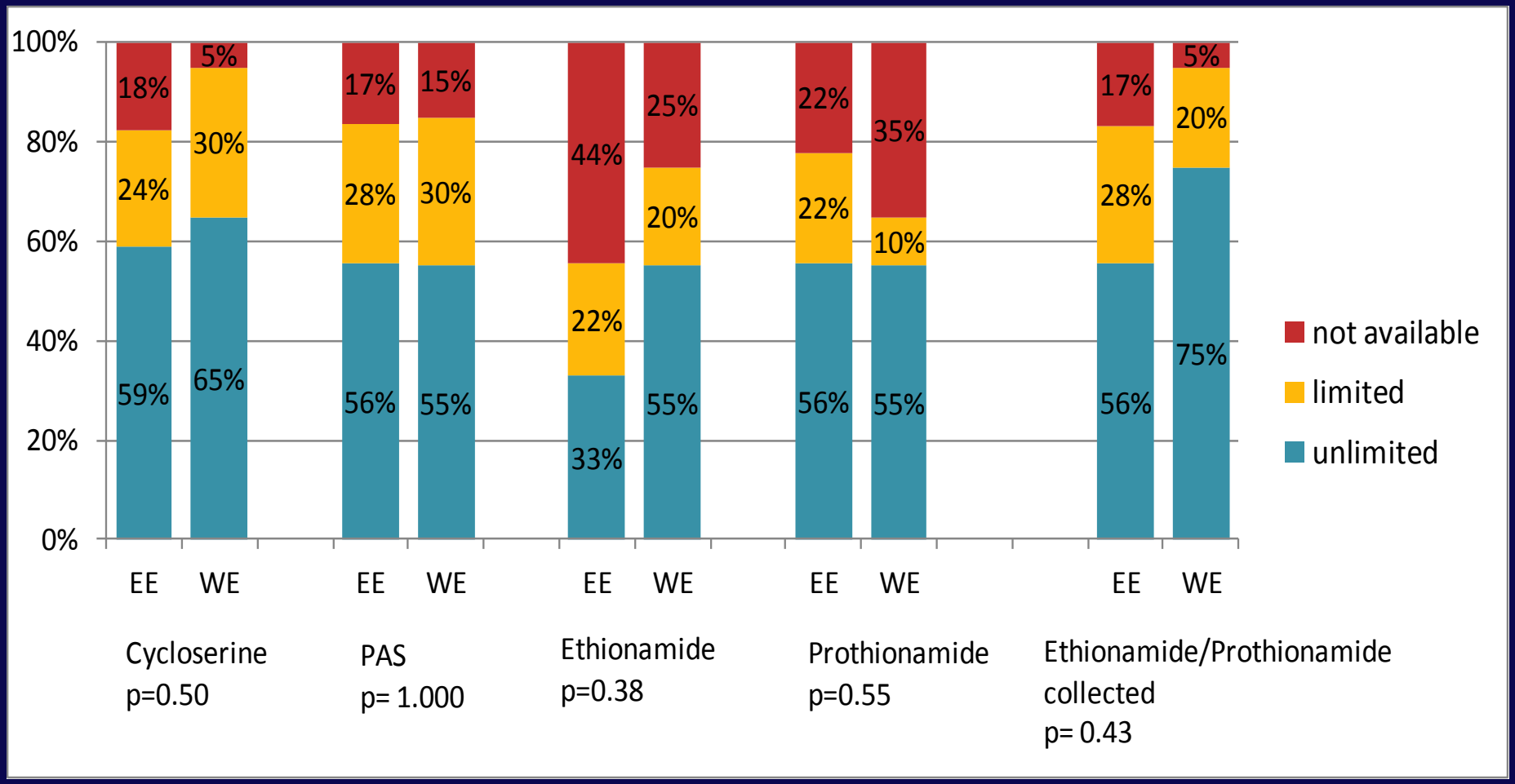


EE= Eastern Europe; WE= Western Europe

Reported access to 2nd line anti-TB drugs II Aminoglycosides/Peptides

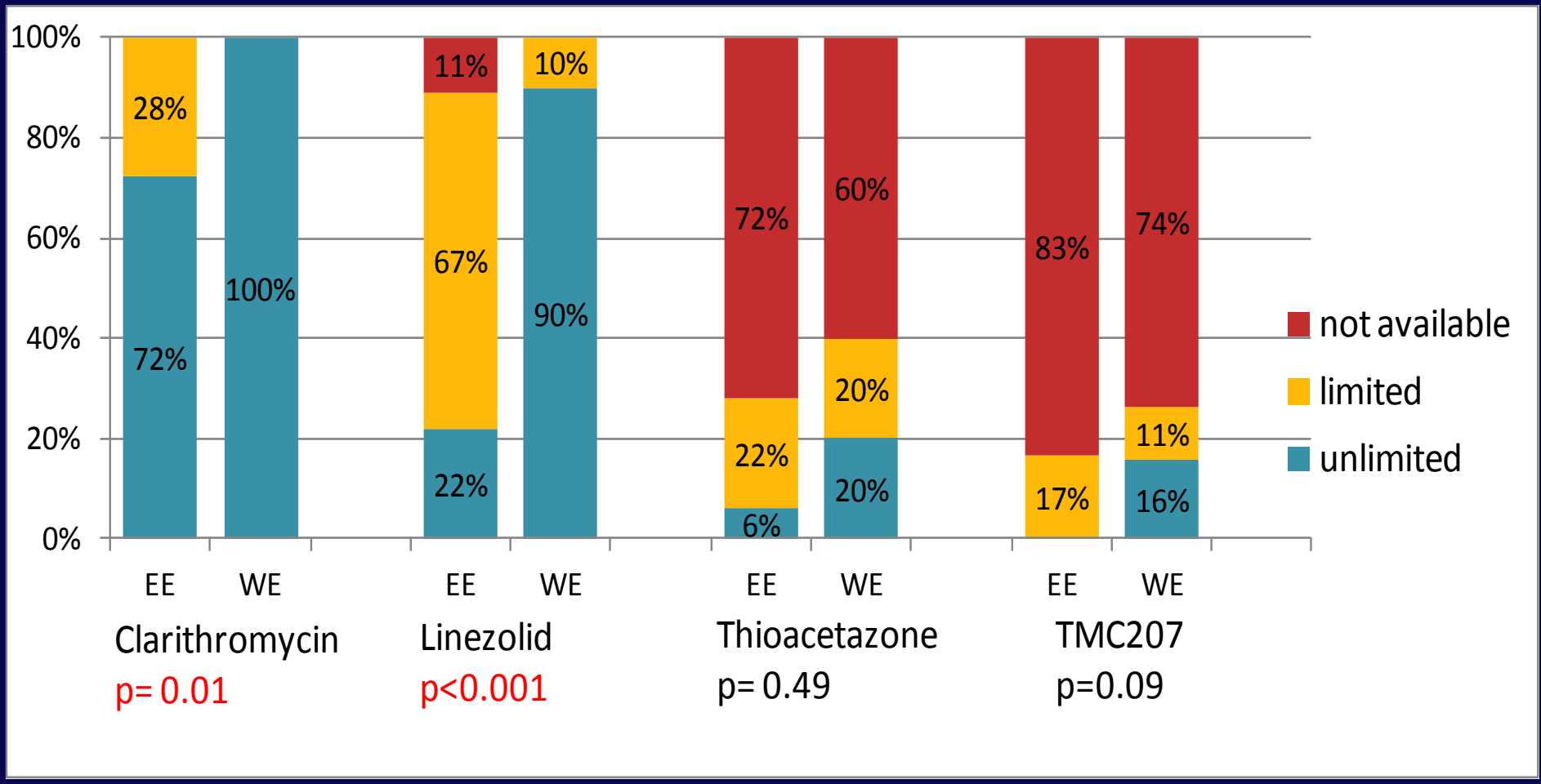


Reported access to 2nd line anti-TB drugs III



PAS = p-aminosalicyclic acid

Reported access to 3rd line anti-TB drugs



Results

- Indication of intra-regional and intra-country variation!

Limitations

- Bias: self-reported questionnaire and not observed practice
- Small sample size (41 clinics/hospitals)
- Hospitals/clinics enrolled are not necessarily representative of Europe (major HIV and TB centres of excellence)
- Representation proportionally larger from Italy and UK in Western Europe, and Russia & Belarus in Eastern Europe
- Not adjusted for multiple comparisons

Summary

Compared to Western European hospitals,

Eastern European hospitals in general reported:

- A more fragmented healthcare system
- Higher levels of directly observed treatment (DOT) of all TB patients
- Less access to opiate substitution therapy (OST)
- Less access to Rifabutin
- Less access to specific 2nd and 3rd line anti-TB drugs

Perspectives

In Eastern Europe, with the highest need for decreasing mortality and limiting MDR/XDR TB:

- Health system set-ups are to a less degree facilitating patient-centred care
- Access to appropriate medicines (anti-TB drugs, OST) is lower

Future studies

- Impact of the observed differences on patient outcomes including excess mortality?
- Changes over time?

Acknowledgements

TB:HIV study group:

Argentina, MH Losso, JJ Toibaro, D Palmero, BJ Bartoletti, E Warley, O Gear, OG Messina, M Michans, H Laplume, D David, C Marson, FP Scapelatto, D Dalessandro, S Lupo,G Costilla Campero, M Herbst, C Remondegui, C Elias. **Belarus,** I. Karpov , A. Vassilenko, E. Skrahina, A. Skrahin, A Zalutskya, O Kondratenko, V. Mitsura, V. Bondarenko; O. Suetnov, D. Paduto, **Belgium,** S Dewit, MC Payen , C Noscoi, K Kabeya. **Chile,** M Wolff, C Cortes.**Denmark:** N. Obel, G Kronborg, O Kirk . **Estonia,** V. Iljna, T Kummik, **France:** M. Bryand, F. Dabis **Georgia,** N Bolokadze, N Lanchava, N Bablishvili, L Goginashvili, L Mikiashvili, K Mshvidobadze, **Italy:** E. Girardi, A. Di Biagio, A. Matteelli, A. Apostoli, S. Barzoni, G. Lapadula, M. Purgatorio, S Carbonara . **Latvia,** B Rozentale , I Zeltina, I Janushkevich, **Lithuania,** S. Caplinskas, Z. Kancauskienne, I Caplinskienne, **Mexico,** B Crabtree, A Pina, JS Madero, J Mosqueda, JA Villanueva **Poland,** A Grzeszczuk, M Bura, A Garlicki, M Inglot, B Knysz, J Kozlowska, J Loster, E Mularska , R Podlasin, M Thompson, A Wiercinska-Drapalo, **Romania,** D Duiculescu , S Tetradov. **Russia,** A. Rakhmanova , A Yakovlev , A. Panteleev, A Turkalova, Y Vlasova, T Trotimora, E Borodulina, L Chumanova, Y Mashkova. **Spain** J. M. Miro, A. Moreno, J. Caylá, J. Millet, J.A. Iribarren, P. Miralles, L del Bano, M Ibarguren, T Aldamiz, S Moreno, J. González, **Switzerland** H. Furrer, M. Rickenbach, M Sagette. **United Kingdom,** F. Post, R. Miller. A Chapman, D Dockrell, E Wilkins, G Cooke, J Ainsworth, D Macallen, J. Dhar, N. Vora, S. Mullaney, S. Kegg, **Ukraine,** G Kyselyova

Steering Committee: M. Bruyand, J. Caylá, D. Duiculesku, H. Furrer, E. Girardi, M. H. Losso, J.D. Lundgren, R. Miller, J.M. Miro, N. Obel, A. Panteleev (Co-Chair), F. Post (Co-Chair), A. Skrahin, J. J. Toibaro

Statistical centre: L Shepherd, A Mocroft

Coordinating centre: D Podlekareva, AM Werlinrud Efsen, M Mansfeld, B Aagaard, BR Nielsen, AH Fisher, D Raben, RS Brandt, O Kirk

Funding: EuroCOORD EU 7th framework programme, The Danish Council for Independent Research (DFF) Research Council, Copenhagen University Hospital, Rigshospitalet