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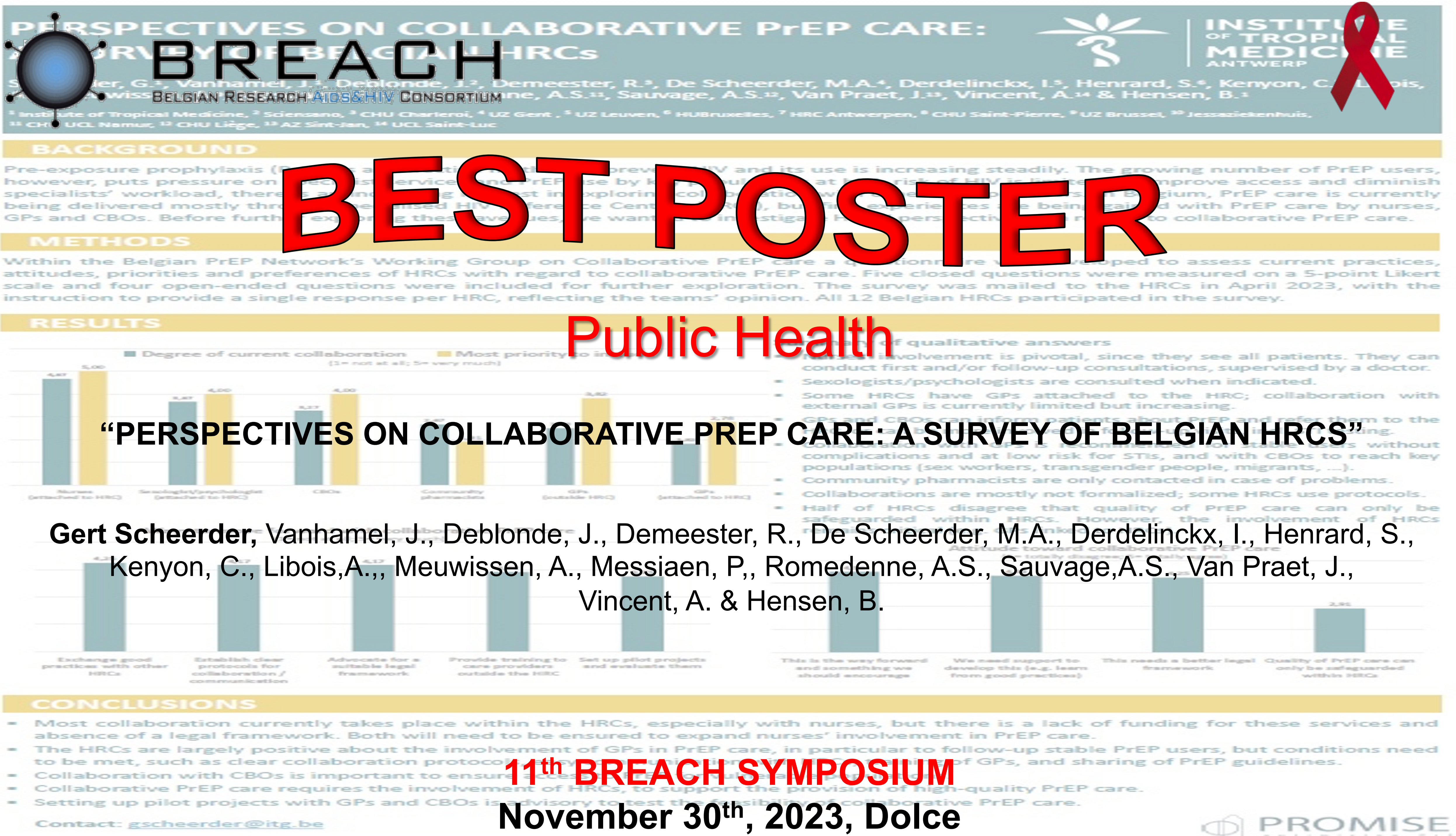

BEST POSTER

Public Health

“PERSPECTIVES ON COLLABORATIVE PREP CARE: A SURVEY OF BELGIAN HRCS”

Gert Scheerder, Vanhamel, J., Deblonde, J., Demeester, R., De Scheerder, M.A., Derdelinckx, I., Henrard, S., Kenyon, C., Libois,A.,, Meuwissen, A., Messiaen, P,, Romedenne, A.S., Sauvage,A.S., Van Praet, J., Vincent, A. & Hensen, B.

11th BREACH SYMPOSIUM

November 30th, 2023, Dolce

BEST POSTER

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“EXPANSION OF HIV-1 SUB-SUBTYPE A6 IN BELGIUM”

Virginie Mortier, Debaisieux L, Dessilly G, Serrien B, Stoffels K, Vaira D, Van Beckhoven D, Van Cutsem E, Van den Bossche D, Van Laethem K, Vanroye F, Verhofstede C.

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Expansion of HIV-1 sub-subtype A6 in Belgium

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Purpose

The HIV-1 subtype distribution in Belgium is high[illegible] heterogeneo[illegible]. The evolution of the HIV-1 subtypes detected [illegible]3 a[illegible] 2022 in 4877 individuals newly diagnosed wit[illegible] HIV-1 [illegible] w[illegible] were treatment naïve, was studied. Special atte[illegible] given to sub-subtype A6, the dominant variant in the former Soviet Union (FSU) and a contraindication for Cabotegravir and Rilpivirine injectables.

Study Subjects

- n = 4877
- HIV-1 positive
- Treatment naïve
- Newly diagnosed in Belgium

Time of diagnosis

2013 2022

Fig. A: Subtype distribution

Material and Methods

Subtypes were determined by phylogenetic analysis using PhyML v3.0 (HKY85 substitution model), iTOL v6.7.6 for tree visualization and ClusterPicker v1.2 for cluster analysis (bootstrap threshold 90%, genetic distance threshold 4.5%). For the individuals with sub-subtype A6 infections, year of diagnosis, origin and risk category were analysed as well.

Fig. B: P[illegible] of sub-[illegible] A6

[illegible]ults

A. Characte[illegible]

Of the 4877 [illegible] ne[illegible] diagnos[illegible] in [illegible]ium between [illegible]13 and [illegible]22, 151 wer[illegible] infected wit[illegible] virus of s[illegible]ubtype [illegible] (3%) (Fi[illegible] and B)[illegible] signifi[illegible] increase i[illegible] prevalence o[illegible] sub-subtype A[illegible]ved [illegible]ce 20[illegible] 7.0% [illegible]ll infec[illegible]s from 202[illegible] onwards versus 1.9% of infections from before [illegible] (p<0.05[illegible] (Fig. C). [illegible] on origin was available for 105 individuals, showing 40.0% Belgians and 48% people from the FSU (Fig. D). The risk category for individuals infected with a virus of sub-subtype A6 was available for 113 individuals. The overall distribution was 50% men having sex with men ([illegible]SM), 4[illegible] hete[illegible]xuals (HE) an[illegible] injecting drug users (IDU) (Fig. E).

Fig. C: Evolution A6 diagnoses (%)

Fig. D: Origin A6 diagnoses

Fig. E: Risk A6 diagnoses

The in[illegible] A6 can be [illegible]ted to in[illegible] of Belgian and FSU origin (Fig. F) and to both heterosexual transmissions as well as to transmissions between MSM (Fig. G).

Fig. F: Evolution origin A6 diagnoses (#)

Fig. G: Evolution risk A6 diagnoses (#)

B. Characteristics of 21 individuals from expanding su[illegible]ubtype A6 cluster

[illegible]in the sub-subtype A6 branch of the phylogenetic [illegible] there were several indications for recent local o[illegible]d transmission, including an expanding cluster of currently 21 individuals (Fig. B, H and I). Of the 16 patients with known origin in this cluster, 14 were Belgians (87%) and 2 Northern Africans (13%) (Fig. J). 15 of the 18 patients with known infection risk were MSM (83%) and 3 were HE (17%) (Fig. K).

Fig. H: Details A6 cluster

Fig. I: Expansion A6 cluster (#)

Fig. J: Origin A6 cluster

Fig. K: Risk A6 cluster

Conclusion

The prevalence of HIV-1 sub-subtype A6 is increasing significantly in Belgium since 2020 due to a growing number of people living with HIV originating from the FSU, as well as local transmission between mainly Belgian MSM.