

How to RESPOND to Modern Challenges for People Living with HIV (PLWH): A New Cohort Collaboration

B. Neesgaard1, A. Mocroft2, G. Wandeler3, R. Zangerle4 H. Günthard5, C. Smith6 S. De Wit7, C. Mussini8, A. Castagna10, A. d'Arminio Monforte11, J.J. Vehreschild12, J.C. Wasmuth13, C. Pradier14, N. Chkhartishvili15, F. Wit16, M. Law17, A. Sönnernborg18, A. Riera19, C. Stephan20, V. Vannappagari21, R. Haubrich22, J. Kowalska23, D. Raben1, J. Rockstroh13, J.F. Larsen1, L. Peters1, L. Greenberg2, R. Paredes24, K. Grabmeier-Pfistershammer4, A. Scherrer5, M. Johnson6, C. Necsoi7, V. Borghi8, C. Muccini10, T. Tsertsvadze15, K. Petoumenos17, J. Lundgren1 and L. Ryom1

1: CHIP, Department of Infectious Diseases, Rigshospitalet, University of Copenhagen, Copenhagen, Denmark; 2: Centre for Clinical Research, Epidemiology, Modelling and Evaluation (CREME), Institute for Global Health, University College London, London, UK; 3: University Hospital Bern, Switzerland; 4: Austrian HIV Cohort Study (AHVCOS), Medizinische Universität Innsbruck, Innsbruck, Austria; 5: Swiss HIV Cohort Study (SHCS), University of Zurich, Zurich, Switzerland; 7: CHU Saint-Pierre, Centre de Recherche en Maladies Infectieuses a.s.b.l., Brussels, Belgium; 8: Modena HIV Cohort, Università degli Studi di Modena, Modena, Italy; 10: San Raffaele Scientific Institute, Università Vita-Salute San Raffaele, Milano, Italy; 11: Italian Cohort Naive Antiretrovirals (ICONA), ASST Santi Paolo e Carlo, Milano, Italy; 12: University Hospital Cologne, Cologne, Germany, University Hospital Bonn, Bonn, Germany; 14: Nice HIV Cohort, Université Côte d'Azur et Centre Hospitalier Universitaire, Nice, France; 15: Georgian National AIDS Health Information System (AIDS HIS), Infectious Diseases, AIDS and Clinical Immunology Research Center, Tbilisi, Georgia; 16: AIDS Therapy Evaluation in the Netherlands (ATHENA) cohort, HIV Monitoring Foundation, Amsterdam, the Netherlands; 17: The Australian HIV Observational Database (AHOD), UNSW, Sydney, Australia; 18: Swedish InfCare HIV Cohort, Karolinska University Hospital; 19: PISCIS Cohort Study, Centre Etudes Epidemiologiques de l'ITS i VIH de Catalunya (CEEISCAT), Badalona, Spain; 20 Frankfurt HIV Cohort Study, Johann Wolfgang Goethe-University Hospital, Frankfurt, Germany, 21 ViiV Healthcare, RTP, North Carolina, USA; 22: Gilead Sciences, Foster City, California; 23: Medical University of Warsaw, Poland; 24: Hosp. Universitari Germans Trias i Pujol, Badalona, Spain.

The Consortium:

- RESPOND was established, as a collaboration between HIV cohorts and clinics across Europe and Australia. A total of 26,018 PLWH were enrolled at RESPOND establishment in 2017 (baseline; Table and Figure 1).
- RESPOND collects large scale observational data, with the intent to quickly be able to respond to areas with unmet research needs.
- The core RESPOND data collection contains detailed information on HIV related parameters, antiretroviral drugs (ARVs), coinfections and comorbidities (Table and Figure 1). In addition, RESPOND's modular data collection structure, allows for project specific data capture.
- Collection and central validation of clinical events (Figure 1) is essential for the study.

Criteria for joining RESPOND:

- Contribute data from ≥1000 unselected PLWH.
- Have a designated clinical lead and IT manager.
- Store data on participants in a standardized format.
- Provide ≥ 80 % completeness for all key variables.
- Adequate information on clinical events available.
- Ability to update follow-up on an annual basis.

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Cohort principal investigators: S. De Wit (St. Pierre, Brussels), R. Zangerle (AHVCOS), M. Law (AHOD), F. Wit (ATHENA) G. Wandeler (EuroSIDA), C. Stephan (Frankfurt), N. Chkhartishvili (IDACIRC), C. Pradier (Nice HIV cohort), A. d'Arminio Monforte (ICoNA), C. Mussini (Modena), J. Casabona & J.M. Miro (PISCIS), H. Günthard (SHCS), A. Sönnernborg (Swedish InfCare), C. Smith (Royal Free HIV cohort), A. Castagna (St. Raffaele, Milano), J.C. Wasmuth (Bonn, HIV Cohort) and J.J. Vehreschild (Cologne, HIV cohort). Cohort Coordinator, operational team members and data management: C. Necsoi, M. Dellorge (St. Pierre, Brussels), H. Appoy, U. Dadagan, G. Leierer (AHVCOS), J. Hutchinson, N. Rose (AHOD), P. Reiss, M. Hillebrandt, T. Rutkens, D. Bergami (ATHENA), F. Ebeling, M. Buch, (Frankfurt), O. Chokoshvili, E. Karkashadze (IDACIRC), E. Fontas, K. Dollet, C. Calistri (Nice, HIV cohort), J. Fani, A. Tavelli, A. Rodano (ICoNA), V. Borghi (Modena), A. Brugnara, J. Reyes-Urueña, A. Montoliu (PISCIS), H. Bucher, A. Scherrer, J. Schuhmacher, A. Traytel (SHCS), V. Svedhem-Johansson, L. Mattsson, K. Alenadad, (Swedish InfCare), F. Lampe, C. Chaloner (Royal Free, HIV cohort), A. Lazzarin, A. Poli, S. Nozza (St. Raffaele, Milano), K. Möhrmann, J. Rockstroh (Bonn, HIV cohort), G. Falkenheuer, N. Schulze, B. Frank, M. Stecher and H. Weiler (Cologne HIV cohort). RESPOND coordination office, data management and Statisticians : L. Peters, L. Ryom, B. Neesgaard, J.F. Larsen, A. Bojesen, M.L. Jacobsen, T. Bruun, E. Hansen, D. Kristensen, T. Elsing, S. Thomsen T. Weide, A. Mocroft and L. Greenberg. RESPOND Scientific Steering Committee, Members and Moderators of RESPOND scientific interest group: Hepat, Public Health, Outcomes with antiretroviral treatment, PrEP, Resistance. Funding: The International Cohort Consortium of Infectious Disease (RESPOND) has received funding from ViiV Healthcare LLC and Gilead Sciences. Additional support has been provided by participating cohorts contributing data in-kind: Austrian HIV Cohort Study (AHVCOS), The Australian HIV Observational Database (AHOD), CHU Saint-Pierre, University Hospital Cologne, The EuroSIDA cohort, Frankfurt HIV Cohort Study, Georgian National AIDS Health Information System (AIDS HIS), Modena HIV Cohort, San Raffaele Scientific Institute, Swiss HIV Cohort Study (SHCS), Royal Free HIV Cohort Study.

Bastian Neesgaard
Blegdamsvej 9, DK-2100
Copenhagen Ø, Denmark
Tel: 0045 35 45 57 60
Fax: 0045 35 45 57 58

E-mail: Bastian.neesgaard@regionh.dk

The Scientific Interest Groups:

- The research agenda is generated in designated Scientific Interest Groups.

Outcomes with ARVs Group:

- Aims to investigate long term clinical outcomes and efficacy of ARVs, overall and in key sub-groups.
- Assess impact of HIV on development of non- AIDS comorbidities and mortality.
- Monitors trends in uptake and discontinuation of contemporary ARVs, especially focused on integrase inhibitors.
- Evaluates safety profiles of newer ARV when used in routine clinical practice.

Public Health Group:

- Aims to develop an online tool to assess the HIV continuum of care.
- Estimates ARV-resistance among PrEP users.

- Investigates standard of care for PLWH across Europe.

Hepatitis Group:

- Studies use and long-term clinical outcome of treatment for hepatitis B and C, in a diverse real-life setting.
- Investigates risk of hepatic (incl. NASH) and extra-hepatic morbidity and mortality in viral hepatitis coinfectd PLWH
- Assess biomarkers predictive of developing hepatocellular carcinoma.

Table 1: Demographics and clinical characteristics at RESPOND baseline

		n	(%)
Gender	Male	19329	(74.3)
	Female	6689	(25.7)
Race	White	18834	(72.4)
	Black	4368	(16.8)
	Other / Unknown	2816	(10.8)
Mode of transmission	Sex between men	11300	(43.4)
	Intravenous drug use	3883	(14.9)
	Heterosexual	8931	(34.3)
Age group	≤ 50	14397	(55.3)
	51-60	7811	(30.0)
	>60	3810	(14.7)
Date of HIV diagnosis	≤ 2011	20723	(79.6)
Viral suppression (<200 copies/mL)		21028	(91.3)
ART naïve		1384	(5.3)
	Median	25% Quartile	75% Quartile
Age	48	40	56
CD4 (cells/μL)	622	439	833
CD4 Nadir (cells/μL)	208	91	327
Baseline date (mm/yy)	06/17	12/15	9/17

Figure 1: ARV exposure (A) and validated clinical events (B) at RESPOND baseline:

