



EDUCATIONAL AND TRAINING NEEDS

WP AND NETWORK LEADS REPORT

27/10/2014





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1. INTRODUCTION

1.1 Background

A key deliverable of work package 9 (Create) is to identify the educational and training needs of the PREPARE network and work packages. Outcomes of this deliverable include the development of; 1) a PREPARE educational syllabus, 2) virtual learning platform and 3) training programme.

To identify the gaps and needs of PREPARE a survey was sent to work package and network leads to establish their educational and training requirements. The responses will contribute to the ongoing development and delivery of resources to address these requirements for all work package and network participants. The survey asked the leads to define target groups for resources, identify the resources they thought were needed, and the most optimal delivery method.

The survey was distributed on the Monday, 7 July 2014 and was closed on Monday, 25 August 2014. The survey was initially sent to 20 respondents, and was further forwarded onto two network members. The details of respondents are as follows:

Name	Work package/Group
Alistair Nichol	WP1
Gail Carson	WP2 & WP3
Peter Horby	WP2 & WP3
Frederico Martinon-Torres	WP3
Antonio José Justicia Grande	WP3
Peter Openshaw	WP3 & WP6
Pieter Fraaij	WP3 & WP6
Theo Verheij	WP4
Alike van der Velden	WP4
Greet Ieven	WP7
Frank Leus	WP8 Crisp
Anita Simonds	WP9
Herman Goossens	WP10 & WP11
Tobias Welte	Capnetz
Julia Bielicki	Paediatric

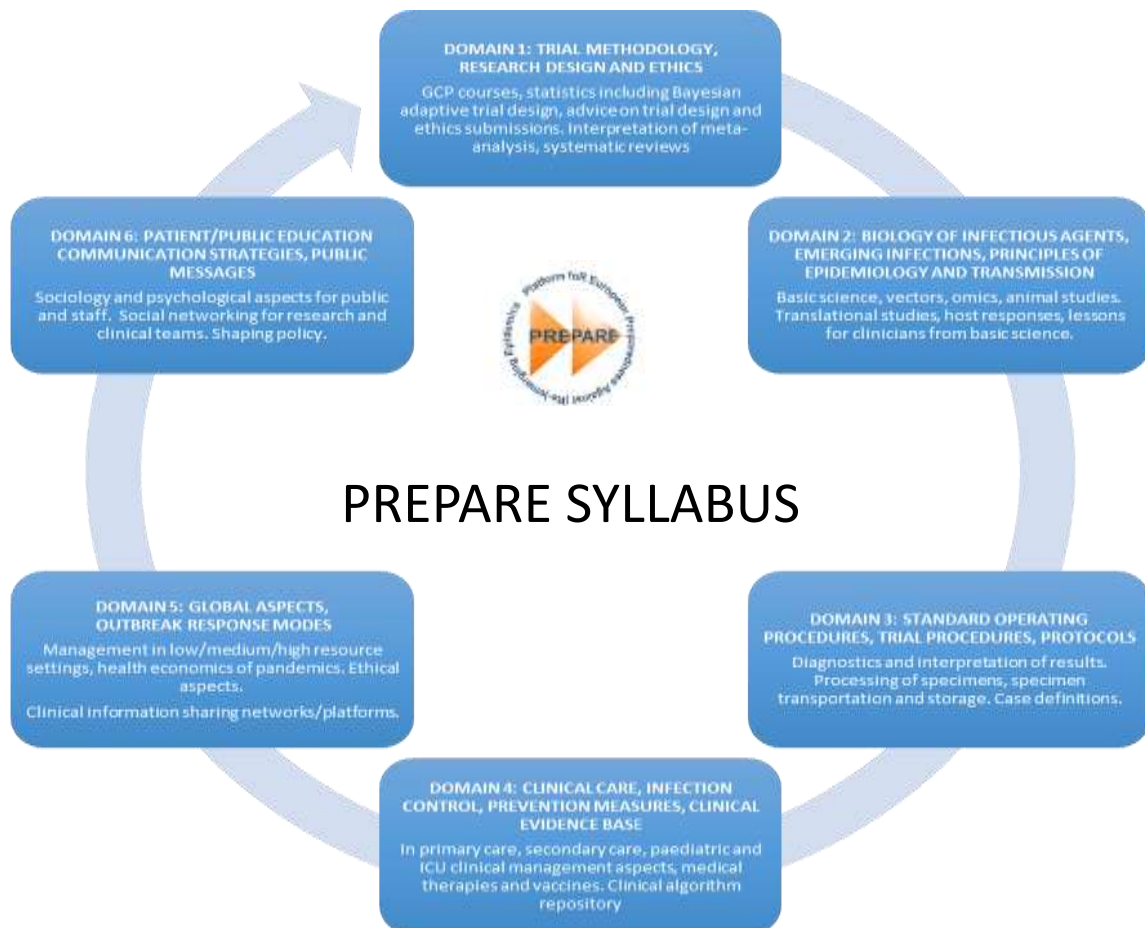
The responses (summarised on pages 5-18) were analysed to create a PREPARE syllabus, and fell into 6 main domains as illustrated below:

1. Trial methodology, research design, governance and ethics.
2. Biology, epidemiology, transmission of infectious pathogens, basic/ animal research
3. Standard operating procedures, trial procedures and protocols



4. Clinical care, infection control, therapies, vaccines, clinical algorithms
5. Global aspects, economics, clinical ethics, networks, information sharing
6. Patient/public information, communication, social networking, policy shaping

1.2 Domains of syllabus



2. DELIVERY OF RESOURCES

2.1 Resources

The following resources were identified as important for the work package participants, with most suitable delivery method.

1. **Good clinical practice (GCP) courses** available online or locally in national languages, links to courses in each country to be provided for teams
2. **E Learning – Virtual learning platform (VLP).** Modules, presentations, online courses on:
statistics, trial design, critical analysis of literature, ethics
 - i. Submission. Modules and presentations on biology of organisms causing pandemics, transmission, history of pandemics, updates on basic
 - ii. Basic science and animal studies, lessons from H1N1, H5N1, MERS-CoV and Ebola.
 - iii. Clinical management guides (adults and paediatric), infection control, management of organ failure, paediatric and ICU care, therapies. Management of patients in primary care.
 - iv. Diagnostics, interpretation of results, medical therapies, vaccines, clinical algorithms. Ethical aspects, economics of pandemics, sociology,
 - v. Communication of messages to public, policy shaping.
 - vi. Expert case share facility (consilium)
3. **Small workshops:** SOPs, trial design, specimen handling, network updates, research methodology, transcriptionomics.
4. **Webcasts:** Epidemiology, modes of transmission, infection control, PREPARE updates
5. **Congresses national/international** – see Timeline below. 2015 congress content being organised in conjunction with societies. Subsequent years' content to be planned according curriculum and PREPARE project development.
6. **Newsletters/Communication:** updates, alerts

2.2 Timeline





3. SUMMARY OF RESULTS

3.1 PART 1

N°	Work Package	Who would benefit from educational/training resources?	What resources should be provided?	Format	Where	When
9	1	We could help to develop (advertise) educational package to set up studies and submit ethics proposals etc.	Research approval methodology	E-learning online	Virtual learning platform	Next year
			Ethical approvals	E-learning online	Virtual learning platform	Not specified
12	2,3	It is unclear at this moment until a 'menu' of potential educational and training resources is available.	Research methodology and governance	Small workshops	Delivered locally	This year
			Study specific operating procedures	Small workshops	Delivered locally	Next year
14	2/3	Clinicians	Basics of infectious disease, virology and micro in relation to outbreaks	E-learning online	Delivered internationally	Immediately
			Outbreak response; case definitions, public health needs, making a diagnosis	E-learning online	Delivered internationally	This year



N°	Work Package	Who would benefit from educational/training resources?	What resources should be provided?	Format	Where	When
7	2,4	All Work packages which are involved in cohort building and patient recruiting. Training and skills for performing clinical studies and to increase recruiting should be provided.	safely, interpreting the lab results and the use of PPE.			
			The role of clinical research in an outbreak including research methodology and governance	E-learning online	Delivered internationally	This year
			Offer GCP training	E-learning online	Delivered internationally	This year
			Share SOPs on triage of e.g. suspected returning travellers with MERS or a VHF	E-learning online	Delivered internationally	This year
			Standard operating procedures to set up and perform a clinical study	Small workshops	Delivered internationally	Next year
			Training in how to deal with regulatory authorities, ethics committees, etc.	Small workshops	Delivered internationally	Next year



N°	Work Package	Who would benefit from educational/training resources?	What resources should be provided?	Format	Where	When
			Methodology in scientific writing including basic information about literature search, statistics, meta-analysis set up	Courses at society congresses	Delivered internationally	Next year
			Set up educational programs about emerging infectious diseases and existing preventive programs	E-learning online	Virtual learning platform	This year
5	3 (paediatric)	Sub investigators or the Paediatric hospital network SERGAS-Penta ID Sub investigators of the paediatric primary care network (ReGALIP) Participant research nurses and clinicians PhD students	Training in SOPs	E-learning online	Virtual learning platform	Next year
			GCP courses	E-learning online	Virtual learning platform	Immediately
			Regular update on PREPARE achievements (from the practical perspective, not the administrative/theoretical achievements)	E-learning online	Virtual learning platform	Before the end of the project



N°	Work Package	Who would benefit from educational/training resources?	What resources should be provided?	Format	Where	When
			Access and training to the agreed protocols in PREPARE	Live webcasts	Virtual learning platform	This year
10	Paediatric	PID specialists who are the link to the local centres Paediatric A&E staff who will be involved in patient recruitment PICU staff and general paediatric ward staff if patients are followed beyond A&E	Specific standard operating procedures for obtaining and processing appropriate samples	E-learning online	Virtual learning platform	Next year
			Short module on findings of EARL with focus on epidemic/pandemic research	E-learning online	Virtual learning platform	Immediately
			Introduction to information material that can be translated and used for patients/local staff	E-learning online	Virtual learning platform	Next year
3	3	Nurses Students MIR Future new additions to the group	Research methodology	Small workshops	Delivered nationally	This year
			Specific standard operating procedures	Live webcasts	Delivered nationally	This year



N°	Work Package	Who would benefit from educational/training resources?	What resources should be provided?	Format	Where	When
			Background on the diseases covered by PREPARE	E-learning online	Virtual learning platform	Immediately
			Some intel on what PREPARE is doing as a whole, and what the goals of this investigation change as new information is being gathered in PREPARE	Live webcasts	Delivered internationally	This year
			know how other groups/nets are going to tackle this matter (how are they teaching new people or training their members to fulfil the objectives of this FP7 programme	Live webcasts	Delivered internationally	Immediately
2	3,6	Mostly the PENTA/SERGAS combination will benefit For my work in WP6 a research nurse and/or a PhD	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>
11	3,6	The transcriptomics analysis requires standardization and to be 'best practice'. There is a lot of expertise in PREPARE already,	Transcriptomics workshop: needs to establish methodologies and SOPs	Small workshops	Delivered internationally	Next year



N°	Work Package	Who would benefit from educational/training resources?	What resources should be provided?	Format	Where	When
		but possibly a workshop to bring all those involved up to the same level of knowledge could be a good training exercise. From an education point of view, a session at a conference or a small stand-alone meeting to discuss the alignment of observational clinical studies of natural disease and of clinical challenge of volunteers would be an exciting and worthwhile proposal.	Mini-conference/symposium: needs co-ordination and support	Symposia at congresses	Delivered internationally	Next year
4	4	1) Primary Care Network coordinators, with respect to the organisational and logistical flow through the intervention, the use of the online CRF entry and randomisation module 2) Patient recruiters (primary care physicians, nurses, practice assistants), with respect to above mentioned items (relevant for them during recruitment and sample sending) and GCP	online GCP training (in different languages)	E-learning online	Virtual learning platform	Next year
			SOPS (flow through the trial, handling samples)	Small workshops	Delivered nationally	Next year
6	4	GPs Academic staff	Research methodology on adapted trials	Small workshops	Delivered locally	Next year
			Good clinical practice (GPs)	E-learning online	Delivered locally	This year



N°	Work Package	Who would benefit from educational/training resources?	What resources should be provided?	Format	Where	When
			Clinical update on diagnosis and treatment of influenza	Small workshops	Delivered locally	Next year
			Management of epidemics in daily primary care	Small workshops	Delivered locally	Next year
8	7	Networks and centres from WP3 and WP4	Specific standard operating procedures	Live webcasts	Virtual learning platform	Next year
1	8	This is an IT package no training is required	N/A	N/A	N/A	N/A
15	9	All members of ERS, ESCMID, ESWI, WONCA and ESICM, staff recruiting to trials, internal and external stakeholders, policy makers, public	Statistical methodology: e.g. adaptive trial design	E-learning online	Virtual learning platform	This year
			Biology of influenza, coronaviruses, Ebola etc.	Courses at society congresses	Delivered internationally	This year
			Epidemiology and transmission of pandemics	Live webcasts	Delivered internationally	This year
			Infection control principles and practicalities	E-learning online	Virtual learning platform	Next year



N°	Work Package	Who would benefit from educational/training resources?	What resources should be provided?	Format	Where	When
			Communication of messages and public education in pandemics	Symposia at congresses	Delivered internationally	Next year
			Economics of pandemics	Courses at society congresses	Delivered internationally	Before the end of the project
13	10/11	I would suggest to organize a training session on the use of social media within PREPARE and on how to effectively use communication tools within the Consortium and Networks (e.g. training on Telecons). GCP and GLP training should be organized (although some of this is planned in COMBACTE and could be done together with WP9)	Networks: GLP	Small workshops	Delivered locally	Immediately
			Networks: GCP	Small workshops	Delivered locally	Immediately



3.2 PART 2

N°	Work Package/ Network	Other providers that may meet some of the educational/training needs?	Do you have learning resources/information you think can usefully be included on PREPARE virtual learning platform?	Are there any educational/training resources you would like provided for personal use? And in which format?	Should some educational/training resources be in language(s) other than English?	Topics that are important for the PREPARE curriculum	Comments, questions, or concerns?
9	1	<p>Local YES</p> <p>International YES</p> <p>Society websites YES</p> <p>If answered 'yes' please provide more information Trudie Land at the global health network ESICM</p>	very soon exerts from our draft WP	No	No	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>
12	2,3	No	<i>Respondent skipped this question</i>	No	Yes	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>
14	2,3	Yes, Public Health England ISARIC	The global health network - all for research training ISARIC - for some protocols	The Prepare course would be fine	Yes	As already listed	I do not think just e- learning is enough. I think it needs local champions. The Human factor in making sure this is all taken on board

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							and actually implemented is important as each will have different challenges.
7	2	Clinical Study Network in Germany Study Networks of the German Centre for Lung Research (Hannover) or the German Centre for Infectious Disease (Cologne) Infectious Disease Programs at WHO and ECDC	<i>Respondent skipped this question</i>	No	No	See above	<i>Respondent skipped this question</i>
5	3 (paediatric)	Industry sponsored and private GCP courses For the rest, I think they are PREPARE specific achievements, protocols, SOPs, so cannot be provided by anyone different to us, although some platforms (society webpages, etc.) could be used to diffuse locally-nationally certain documents/protocols that might be publicly available	No	No	Spanish. All the documentation intended to be used at a national-local level, if we want the best possible implementation and achievements. From the SOPs to the protocols-regular updates f	Ensure all participants have a GCP course regularly updated Ensure training in those SOPs that interest the participant Ensure training in the PREPARE eCRF entry data for those with that responsibility	Once the GCP/protocols for concrete entities are developed and agreed, we might consider its diffusion using e-learning CME programs, from our own web platform maybe.

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10	Paediatric	Local: CTUs offer GCP training	No, but we work with an excellent VLP provider (TALL, University of Oxford).	It must be possible to translate materials into local languages within PREPARE.	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>
3		International: Medscape	No	Not an already existing one. PREPARE should create its own, according to the needs of every group/net.	Spanish	Research experience. Adaptability. Resilience.	<i>Respondent skipped this question</i>
2	3,6	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>
11	3,6	Suggest clinical workshops in association with ERS, ESWI, the Mucosal Immunology Congress in Berlin (currently under programme development) and other international meetings. The BTS or BSI might also be a good vehicle for these meetings but would be better not to be based just on a national society's meeting. The BSI is having a joint meeting with the	We have a finished version of the MOSAIC video by Steve Appleby that will be a good deliverable to use in PREPARE. We also have a display stand and various other resources of this sort that can be accessed. The BSI has a giant nose (big enough for a child to crawl through)	No	I would assume that the EU has guidelines on this. We should be reaching the eastern and southern borders of Europe, since these areas are probable sites of epidemic spread (although international airports like Heathrow are possibly more	Practical epidemiology; how to influence public behaviour; measures to improve vaccine uptake; appropriate and inappropriate prescription of antivirals and antibiotics; how to provide supportive	

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		Dutch society next year, and this might be international enough. E-learning modules based on the content of the workshops would also be a good idea, ESWI has experience of organising this sort of thing and could arrange for a camera crew to be present at the workshops and would be a slick partner for this type of work.	that is in storage at present.		important than simple geographical borders).	care in low resource settings (including in the event of a severe disease outbreak in affluent areas of Europe).	
4	4	Local YES National YES In the Netherlands there is a GCP e-learning. In Spain, all GPs in the network are GCP-trained.	No	<i>Respondent skipped this question</i>	We have Networks in 20 countries, training in their own language is preferred	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>
6	4	Local YES National YES International YES Of course workshops etc. on influenza are offered now and again on postgraduate training and congresses, but not often!	An online course on good clinical practice is developed by a company called Elevate, here in Utrecht	some education on adapted trials	Local courses should be in local language!	See previous suggestions?	<i>Respondent skipped this question</i>

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8	7	We already had a WP7 meeting here in Antwerp and discussed a first draft of a shipping document we are preparing and which could be used both by treating physicians and by lab people. Once we will have a next version, we will also send this to you so that you can give your input and use it in your educational or training material and/or to be put on the website.	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>	<i>Respondent skipped this question</i>	Different kind of SOP's needed for the clinical studies including: 1) SOPs for sampling in the different clinical syndromes, 2) SOPs for shipping of samples, 3) SOPs for analysis of samples if done by the same standardized method and not by their local in house method, 4) Guidelines on testing for different syndromes, 5) Review and importance of the etiologic agents in the different clinical syndromes.

N°	Work Package/ Network	Other providers that may meet some of the educational/training needs?	Do you have learning resources/information you think can usefully be included on PREPARE virtual learning platform?	Are there any educational/training resources you would like provided for personal use? And in which format?	Should some educational/training resources be in language(s) other than English?	Topics that are important for the PREPARE curriculum	Comments, questions, or concerns?
1	8	N/A	N/A	N/A	N/A	N/A	N/A
15	9	Yes, Good clinical practice (GCP) courses for training in clinical trials/governance. Best to deliver these nationally/locally in country's own language	We need to commission these once Educational needs survey reveals target topics	Clinical guidelines VLP Website	Yes, GCP courses Standard operating procedures Clinical guidelines	As overpage... Epidemiology Biology of infectious agents Educating the public Economics of pandemics Ethics of pandemics and duty of care Case sharing - i.e. ability to discuss problematical clinical cases on VLP Ensure SOPs are all on VLP	Excellent project Curriculum will have huge potential to develop resources to educate the medical world and external stakeholders.
13	10/11	Yes, COMBACTE	Depends on the design of the trials	Depends on the design of the trials	No	Translation of scientific outputs into meaningful policies	Sorry to be non-specific. What came to my mind is GCP and GLP for the networks. But there is a lot more education and training needed, described in WP9.

4. APPENDIX - QUESTIONNAIRE

- Name:
- Institution:
- Work Package/Network:
- Country:
- Email Address:

Q1: Which team members or groups within your WP/network would benefit from educational/training resources from CREATE WP9? Please list.

Q2: How, where and when should your suggested educational/training resources be provided?

Training resources	Format	Where	When

Q3: Are you aware of existing providers that may meet some of your educational/training needs?

- Local
- National
- International
- Society websites

Q4: Do you have learning resources/information you think can usefully be included on PREPARE virtual learning platform? Please list, and indicate target users or groups

Q5: Are there any educational/training resources you would like provided for personal use? And in which format?

Q6: Should some educational/training resources be in language(s) other than English? Please specify.

Q7: Please list topics you feel are important for the PREPARE curriculum

Q8: Do you have any other comments, questions, or concerns?