Pharmacoepidemiology in the era of COVID-19

March 22 - 25, 2021





Course Timetable

All course content can be found on the Moodle page, please contact <u>anne-marie.sue-patt@lshtm.ac.uk</u> in case you have trouble accessing it. Pre-recorded videos will be made available approximately one week before each session, feel free to watch these either during the allotted time or when it suits your schedule. Details of the content covered within each session can be found below the timetable.

	Morning 09:30-10:30 Prewatching 10:30-11:00 Q&A 11:-11:15 Break 11:15-13:00 Interactive session (break 12:15-12:30)	Contact Tutor*	Afternoon 13:30-14:30 Prewatching 14:30-15:00 Q&A 15:00-15:15 Break 15:15-17:00 Interactive session (break 16:15-16:30)	Contact Tutor*
Monday 22nd of March	Introduction to Pharmacoepidemiology and Study Designs	Rohini Mathur	Principles of Bias and Confounding	Laurie Tomlinson
Tuesday 23rd of March	Clinical Trials, Interpretation of Measures of Effect, Confidence Intervals and P-values	Anna Schultze	Cohort Studies	Christopher Rentsch
Wednesday 24th of March	Case-control studies	Angel Wong	Alternative Study Designs (cross-sectional, ecological and self-controlled studies)	Kevin Wing
Thursday 25th of March	Morning 9:30 - 10:30 Pre-watching 10:30 - 11.00 Break (deadline for questions to panel, 10:40) 11:00 - 12:00: Vaccine Panel Discussion 12:00 - 12:15 Break 12:15- 13:00 Vaccine Study Design Exercise		Afternoon 14:00 - 15:00 Vaccine Study Design Group Presentations 15:00 - 15:15 Break 15:15 - 15:45 Pre-watching time 15:45 - 16:15 Q&A 16:15 - 17:00 Closing session followed by networking	
	COVID-19 Vaccines	Helen McDonald	Evaluating and Improving Pharmacoepidemiological Research	Anna Schultze

^{*}the easiest way to contact a specific tutor is via the forums in moodle, however, emails are also provided on the moodle page

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Session Content

All content can be found on the dedicated Moodle page. Note that all practicals will be small group exercises in Zoom breakout rooms.

Moodle Page: [placeholder]

Q&A Zoom Link: [placeholder]

Practical Group A Zoom Link: [placeholder]

Practical Group B Zoom Link: [placeholder]

Day	Time	Topic	Pre-recorded Content and Practical	
Monday 22nd of March	AM	Introduction to Pharmacoepidemiology and Study Designs	Pre-recorded Content: 1. Introduction to Pharmacoepidemiology (Ian Douglas, LSHTM) 2. Pharmacoepidemiology during COVID-19 (Stephen Evans, LSHTM) 3. Introduction to Study Designs (Rohini Mathur, LSHTM) Practical: Identifying study designs using published COVID-19 studies	
	PM	Principles of bias and confounding	Pre-recorded Content: 1. Introduction to Bias (Laurie Tomlinson, LSHTM) 2. Introduction to Confounding (Laurie Tomlinson, LSHTM) Practical: Identifying confounding and bias in published COVID-19 studies	
Tuesday 23rd of March	AM	Clinical Trials, Interpretation of Measures of Effect, Confidence Intervals and P-values	Pre-recorded Content: 1. Interpreting Measures of Effect (Anna Schultze, LSHTM) 2. Interpreting Confidence Intervals and P-values (Anna Schultze, LSHTM)	

			3. Introduction to Clinical Trials (Anna Schultze, LSHTM) 4. The RECOVERY Clinical Trial (Richard Haynes, University of Oxford) Practical: RECOVERY (dexamethasone) guided paper critique
	PM	Cohort Studies	Pre-recorded Content:
			 What is cohort study? (Christopher Rentsch, LSHTM) Interpreting a cohort study (Christopher Rentsch, LSHTM) Open data platforms: Observational Health Data Sciences and Informatics (OHDSI) (Daniel Morales, University of Oxford) What is hydroxychloroquine and how is it used in practice? (William Dixon, University of Manchester) The hydroxychloroquine story: past, present, and future (Christopher Rentsch, LSHTM) Practical: Hydroxychloroquine guided paper critique
Wednesd ay 24th of March	AM	Case-control studies	Pre-recorded Content: 1. Introduction to case-control studies (Angel Wong, LSHTM) Practical: Case-control study design exercise
	PM	Alternative Study Designs (cross-sectional, ecological and self-controlled studies)	Pre-recorded Content: 1. Introduction to self-controlled designs (Ian Douglas, LSHTM) 2. Hypothesis-generating designs (cross-sectional, ecological, and case series) (Kevin Wing, LSHTM) Practical: Hypothesis generating designs guided paper critique

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Thursday 25th of March	AM	COVID-19 Vaccines	Pre-recorded Content: 1. An introduction to COVID-19 vaccine studies (Helen McDonald, LSHTM) 2. Interpreting COVID-19 vaccine trials (Stephen Evans, LSHTM) 3. COVID vaccine safety - challenges of post-licensing pharmacovigilance (Ian Douglas, LSHTM) Pre-session reading and task: Panel biographies and submit questions online Practical: Vaccine Study Design Exercise
	PM	Evaluating Research and Open Science	Pre-recorded Content: 1. Evaluating pharmacoepidemiological studies - views from a reviewer (Krishnan Bhaskaran, LSHTM) 3. How Open Science can Improve COVID-19 research (Clemence Leyrat, LSHTM) Practical: No practical during the final session; the Q&A will occur later due to the vaccine design exercise and will be an opportunity for students to discuss the pre-watching content with the tutors and ask outstanding questions. A feedback form will be circulated following the conclusion of the course; this needs to filled out before we can issue a certificate of attendance.