research is more likely to be false than true.” “Serious systematic bias, error and wastage” are to blame. 9 Steps have been suggested to solve these problems. But one major step is missing: a critical review of what is meant by ‘true’. In EBM truth continues to operate hidden and almost undisputed through the linked concept of ‘bias.’ In order to solve the challenges, we face, a new deep and thorough understanding of the concept of truth is needed. Analysis. There are several important theories of truth, but the dominant way truth is conceptualized in the discourse and practice of EBM is the ideal limit theorem. As detailed by famous 19th century statistician and philosopher CS Peirce, it assumes that the ultimate and absolute truth would reveal itself in the long run, over many events in many communities now and in the future. It requires the analysis of frequent events as typically done in RCTs to make inductive inferences. In this concept of truth, bias is the deviation from the ideal limit and cognitive biases refer to failures in clinical reasoning to correctly estimate the ideal limit, the ‘true’ prevalence, incidence, and risk. But as Peirce already pointed out, the assumptions underlying the ideal limit theorem are largely metaphysical; they can be neither proven nor refuted empirically. The problem is that the ideal limit is based on a materialist view born out of classic physics. It requires a belief that human interest is just epiphenomenal, that patients and clinicians behave like dices or billiard balls, beings without internal life tending towards ideal limits as the rules ‘out there.’ It also assumes that a full separation between observers and research participants is possible and that reality is stable and deterministic. We could very well proclaim that these beliefs are justified as EBM has been so successful. However, the ideal limit may also be the cause of challenges as stated in the EBM manifesto. Solution. It is time to update our truth concept and accompanying statistics from materialistic classic physics to more modern views including quantum physics, which has already made some interesting contributions to explain probability judgement errors. We need a new framework that is capable of incorporating a view on reality that is less deterministic and includes human agency instead of discarding it as epiphenomenal. In any case, in order to prevent unwarranted relativism in a post truth world and make better inferences in clinical practice, a new generation of clinicians and the wider EBM community could benefit from a closer analysis of its existing assumptions about truth, validity, and reality.

Poster Presentations

1 ADDRESSING INTIMATE PARTNER VIOLENCE: IMPLICATIONS FOR MEDICAL CURRICULA IN MOZAMBIQUE

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Objectives To identify ways to improve curricula on IPV mitigation-content in order to enhance prevention and medical care in Mozambique.

Method A review of the literature published between 1998 and 2018, evaluating the attention paid to IPV related content in medical curricula. A survey administered to third and 6th-year medical students (N387), enrolled in five medical schools

in Mozambique focused on mapping in a comprehensive way students’ perceived mastery of their knowledge, skills, and attitudes related to IPV competences. We screened Curricula of Mozambican medical schools on IPV. A number of video-vignettes represented real clinical scenarios are being developed in order to cover specific IPV knowledge, skills and attitudes as found in our previous studies. An adapted classroom-based interdisciplinary module of IPV is being developed and will be tested for the same medical students from our previous studies. This module is going to be evaluated using pre-post professional development by the means of a questionnaire on competences acquired.

Results IPV content is hardly and inconsistently addressed when focusing on the related content and instructional strategies being adopted.

Conclusions There is a need for a more comprehensive approach to developing medical student’s knowledge, skills, and attitudes to deal with the survivors of IPV.

2 RESURRECTION: VICTORY OVER DISEASE AND DEATH – WHAT WE CAN LEARN FROM AFRICA’S CHARISMATIC PASTORS

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Objectives

1. To demonstrate that perceptions of evidence and reality are fundamentally driven by beliefs and values
2. To examine the delusional self-confidence of influential figures and the vulnerability of populations in the communication of complex issues
3. To review the systems of values and belief that supersede or challenge science and scientific evidence
4. To argue that failures in scientific communication and influence are, amongst much else, failures in imagination and implementation of the art of rhetoric
5. To propose radical changes in regulatory and scientific communication and engagement with citizens

Method This project is part of an ongoing examination of the contemporary political, social and communications contexts in which scientists and bureaucrats exist and must explain themselves to the world. The early fruits of this work have been presented at various meetings around the world, including EBM. The research entails daily scanning of national and international printed and broadcast media, and examination of professional journals and the latest books for insight and evidence about perception, opinion-formation and decision-making in the digital age. It includes philosophical consideration of the nature and impact of bias. The material for this proposal represents the latest stage of that journey and offers some radical new insights. The ‘Resurrection’ of the title (an actual recent event in Soweto) is taken as emblematic of the profound issues at stake, especially audience vulnerability to deception, and the crisis facing us.

Results

1. Perceptions of science and the credibility of evidence, even among some scientists, are driven by values and beliefs that may be inaccessible to scientific discourse
2. In an increasingly polarized world, where identity politics drives loyalties, ‘facts’ become determined by group

consensus or ideology, and fake-news sustains and consolidates prior beliefs. These powerful forces are generated by political, economic and religious processes and realities, which must be factored into any public communications and determine their every detail

3. Regulatory, bureaucratic and many scientific communications fail to take this complexity into account in both the presentation of evidence and in its defence
4. Exploiting some of the wisdom of Aristotle's *Art of Rhetoric*, and using some of the insights of modern sociology, psychology and neuroscience, specific reforms in medical and scientific communications and public engagement are proposed. The resurrection we need is that of genuine social discourse.

Conclusions With few exceptions, scientific, regulatory and bureaucratic communications in medicine, have fallen far behind the dynamism and diversity of modern popular culture, especially digital media. Scepticism about vaccination (and climate change, of course); the embracing of alternative and charismatic practices and therapies; the dismissive attitudes to causality and evidence; the vast failures in adherence; the seemingly irresistible trade in fake and substandard medicines; the opioid crisis; infant and maternal mortality; medical and medication errors and the worldwide abuse of antibiotics – hardly any of these are either countered with the skill, energy, creativity and seductiveness of their promotion, or equal in response to the intensity of their entrenchment.

Proposals for debate and change radical community engagement; nurturing of ambassadors for science; prioritisation and ranking of core issues; creation of evidence stories; revolution in use of language; exploration of the causes of scepticism; dynamic exploitation of digital devices and channels.

3 ROLE OF SCIENTIFIC SOCIETIES IN GUIDELINES DEVELOPMENT. THE CASE STUDY OF THE EUROPEAN SOCIETY OF CLINICAL MICROBIOLOGY AND INFECTIOUS DISEASES

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Objectives Great challenges lay ahead of scientific societies as providers of guidance documents. On one hand, they are under increased scrutiny to develop trustworthy and useful

guidelines; it has even been advocated that professional societies should abstain from authoring guidelines and disease definition statements. On the other hand, scientific societies are requested by clinicians, policy makers and patients alike, to be more efficient in producing guidance documents on a large number of topics, often in the absence of strong evidence upon which to base recommendations.

The European Society of Clinical Microbiology and Infectious Diseases (ESCMID) is revising its programme for guideline development to meet the huge challenges in how guidance documents are perceived (trustworthy guidelines) and developed (useful guidelines). We discuss here lessons learnt and plans for the future.

Method ESCMID (founded in 1983) is Europe's leading society in clinical microbiology and infectious diseases, with 30,000 members from all European countries and all continents, 30 study groups, and many national and international affiliated institutions. ESCMID is part of the Guidelines International Network. In the past few years, many guidance documents were produced under the ESCMID name; however, ESCMID's main role was one of networking, general oversight and peer review. Staff was limited to 0.5 full-time equivalents, with only an administrative role. The role of the guideline director was liaison between potential drafting groups and the Executive Committee, general oversight of conflict of interest, coordination with other scientific societies in cooperative projects. Industry-funding of guidelines has never been accepted. Since 2017, we reviewed our procedures and developed a strategy to improve quality, rigour and transparency of guidelines issued by our society.

Results The three main challenges we identified are: conflicts of interest of members and society, leading to potentially biased guidance; lack of knowledge of methods in guideline development even among experienced members (with resistance to change as an additional consequence); reliance on commitment of individual professionals, leading to risk of poor sustainability. In response, we have devised a multifaceted intervention. We are involving, via open calls, a larger number of professionals, to create a network (not limited to Europe) able to manage, control, monitor and oversee the many practical, scientific and ethical issues involving clinical guidance documents. We created different bodies/groups, to ensure reciprocal oversight on different activities. We involved stakeholders globally, to select priority topics, with appropriate funding. We are organizing online and face-to-face training on guideline development methods and implementing tools to assist guideline development groups. Most importantly, we are updating our policy and strategy for conflict of interest control and management.

Conclusions The science and art of guidance production is complex and important in these times of information overload, resource constraints in health care and shrinking research budgets. We highlighted many issues awaiting guideline production in our fields of medicine and are working to address them. The pillars of our strategy are to: select cutting-edge guideline topics, apply an independent and rigorous methodology; ensure a global perspective; appoint members to guideline-related tasks based on merit; involve young ESCMID members to ensure sustainability of the model; strictly monitor conflict of interest declarations.

We here call for external, independent, advisors to participate in our programme.

We are confident that, with the contribution of excellent professionals (ESCMID and not), and with the balances and