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IASLC 2017: Interpreting Published Research – Angela Tod, UK

Monday 16 October 2016 15:45 - 17:30; Mini Symposium: MS 10 Evidence Based Care: Interpreting the Research and Enhancing Practice

Invited Speakers Abstract

Background

The Evidence-Based Practice (EBP) or Evidence-based Healthcare (EBHC) movement has revolutionised health care in the last 20 years by promoting research appraisal, interpretation and implementation.¹ EBP has been the cornerstone of practice development and service improvement. The most common definition of EBP is “the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patient. It means integrating individual clinical expertise with the best available external clinical evidence from systematic research.”²

This presentation will reflect on EBP relating to interpreting published research to enhance practice. In lung cancer this is an opportune time as evidence regarding new treatments, services and professional roles is growing. Some of the recent changes and challenges to EBP that influence how we interpret research will first be considered. Second, tools that can support lung cancer practitioners in interpreting published research will be discussed. Finally the presentation will reflect on the contribution of creative, methods of co-production to mobilize knowledge and published evidence to improve practice. The future application and contribution of these methods is considered

Evidence-Based Practice: Changes and Challenges

Much has changed since 1996 in terms of EBP and the environment in which it operates. Now EBP is considered to comprise 3 components, ‘Best Research Evidence’, ‘Clinical Expertise’ and ‘Patient Values, Experience and Preferences’.³

Critically, the much quoted definition Sacket definition of EBP^{1,2} misses the third vital element, which is, the integration of patient values, experiences and preferences. In addition, the initial emphasis in EBP was on medicine and applying evidence to practice regarding individual patients care and treatment. However, EBP has now evolved into Evidence-Based Healthcare (EBHC), where evidence is mobilized to change practice at a policy, organisation or service level. To address this change in emphasis a change to research methodologies is required, as well as a rethink regarding the hierarchy of evidence. The Randomised Controlled Trial is not always adequate. Mixed-methods approaches are more commonly employed and the value placed on qualitative, patient experience methods has increased. Whilst meta-analysis and randomised controlled trial methodologies remain the gold standard to generate evidence of effectiveness, EBH questions have become more complex and diverse. These questions require different research approaches and tools to generate answers. Finally, EBP is only as good as the evidence it’s based on.⁴ We therefore need to be aware of the limitations of current evidence, for example, the influence of vested interest (e.g. industry and managers), not publishing negative

trial results, cherry picking findings to report, over-inflation of claims from trials, the overwhelming volume of evidence, and the critical gaps in evidence.^{4,5,6}

In addition, policy across the globe demands more patient and public involvement in the identification of research priorities and the conduct of research. There have also been huge methodological developments in terms of applying research to practice for example, service improvement and quality improvement methodologies, such as Microsystems. More recently there has also been a growth in interest in knowledge mobilisation, co-production and co-design. These enable people working in health care to work in equal partnership with people receiving healthcare in order to generate, appraise and use research to develop creative solutions to current problems with health services, care and treatment.^{7,8}

Tools to support research interpretation and application

A key task in EBP is to interpret published research. Over the years a proliferation of strategies, tools and resources have been developed to support clinicians, researchers and academics in appraising, interpreting and applying evidence to enhance practice.^{3,5}

Broadly a 5 stage EBP process is advocated, Ask, Acquire, Appraise, Apply, Assess, each with its own strategies and tools. The purpose of each of these stages will be explained and implications for interpreting research will be summarised. A brief summary of some of the current tools will be presented including online training courses, critical appraisal tools and quality assurance criteria.

The role of co-production in interpreting and applying research

The recent interest in co-production and knowledge mobilisation (KM) will potentially change how we interpret and use published research. Greater emphasis has been placed on creative approaches to knowledge generation through co-production, co-creation and co-design.⁷ These approaches change the role of traditional published evidence in changing practice and service development.

This change raises the importance of “blurring the boundaries between knowledge creation and knowledge use through integrating multiple stakeholders’ perspectives in research and implementation activity. It also supports the notion that such approaches should be iterative and incremental.”⁸

Embracing a co-production approach to research generation, interpretation and application means rejecting a reliance on Mode 1 knowledge, where research knowledge is created by university-based scientists and then interpreted packaged and processed in a way that makes it accessible and usable to non-academics. In preference Mode 2 knowledge is espoused, where knowledge and research is collaboratively generated in its field of application with a range of stakeholders.⁷

The co-production process in healthcare will be summarized with reference to key literature, examples⁷⁻¹⁰ and evidence of impact.¹⁰ Finally the relevance of this for research interpretation in lung cancer is considered.

Conclusion

There are limitations to published research to inform lung cancer treatment and practice. Published research is never going to tell you enough to support change. Need to incorporate patient and public view. Co-production in KM provides a way forward to think differently in interpreting evidence and developing services and care.

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