Editorial

Orthoptic Practice Variations and Effective Care: The Need for Clinical Practice Guidelines to Improve Care

In 1981 50% of the award for the Nobel Prize for Physiology or Medicine was given to David Hubel and Torsten Wiesel for the discovery of the pathophysiology of amblyopia[1] and thus marked a turning point in the management of children with this condition. Recognition that early visual experience is essential for the development of the visual brain has fundamentally changed the way we manage disorders that interfere with image formation in the eye during early life. However, since that time amblyopia treatment history has been littered with abandoned methods such as the Cam vision stimulator, red filter treatment and pleoptics and has seen a variety of regimes that include occlusion of a few minutes a day to all waking hours of the sound eye, Bangerter foils of different densities, use of atropine ranging from daily to exclusive weekend only instillation, contact lenses and spectacles combined with occlusion or as a period of exclusive treatment and refractive surgery.[2] There is also evidence that there is a lack of adherence to standardised amblyopia treatment regimes and practice differences between centres and countries exist.[3-7] The results of these studies highlight the lack of standardisation in the treatment of the various types of amblyopia in apparently similar eye care communities. Patients with amblyopia receive different treatment depending on their clinician, hospital or location. While variations in amblyopia treatment practice are well documented, there has been less progress in explaining these variations.

The diagnosis, management, and treatment of amblyopia in clinical practice is ideally guided by evidence accrued from high-quality clinical trials, cohort studies, epidemiological studies, observational data, and a consensus of clinical experience. Recommendations are proffered in many guidelines from the continents of the world. Patients benefit from adherence to clinical practice guidelines[8] and appropriate treatment. The expectation would be that the practice of amblyopia treatment would be similar, or almost so, in all parts of the world. Any differences, which exist in amblyopia treatment, would be accounted for by unique clinical features of this disorder in different parts of the world. If that were so, and it is not,[9] then outcomes measured as mortality, morbidity, treatment procedures and regimes would be universally similar, and measurement of those outcomes would provide an indicator of performance, which would have validity within regions of a particular country, between countries, and between continents. What nirvana that would be for providers of health care. But the reality is otherwise.

Too often orthoptic practice has had only limited success in improving the scientific basis of everyday clinical practice. Patterns of practice among eye care teams are often idiosyncratic and unscientific, and local medical opinion and parental opinion are more important than science in determining how care is delivered. Few practices have written guidance for occlusion treatment.[7] While occlusion therapy is widely accepted as the first choice treatment of amblyopia[6,10] there are clinician, regional, country and continent differences in the age at which treatment is started, how quickly treatment was discontinued, whether full or part-time occlusion is selected, the intensity of occlusion therapy, whether refractive correction is used alone as a treatment for anisometropic amblyopia before using occlusion therapy, and whether amblyopia patients received surgery, and if so, whether treatment is continued postsurgically.[3-6]

Clinicians, and health care policy makers see clinical practice guidelines (CPG) as a tool for making care more consistent and efficient, and for closing the gap between what clinicians do and what scientific evidence supports. The Institute of Medicine defines CPG as "systematically developed statements to assist practitioners' and patient decisions about appropriate health care for specific clinical circumstances".[11] It has been shown in rigorous evaluations that clinical practice guidelines can improve the quality of care.[8] Guidelines promote interventions of proved benefit and discourage ineffective ones while making it more likely that patients will be cared for in the same manner regardless of where or by whom they are treated.

CPG can improve the quality of clinical decisions. CPG based on critical appraisal of the literature offer explicit recommendations for clinicians who are uncertain about how to proceed, overturn the beliefs of outdated practices, improve the consistency of care, and provide authoritative recommendations that reassure practitioners about the appropriateness of their treatment policies. They alert clinicians to interventions unsupported by good science, reinforce the importance and methods of critical appraisal. The methods of guideline development that emphasise systematic reviews focus attention on key research questions that must be answered to establish the effectiveness of an

intervention which benefit researchers by drawing attention to gaps in evidence.

CPG can support quality improvement activities. The first step in designing quality assessment tools (standing orders, critical care pathways, algorithms, audits, etc.) is to reach agreement on how patients should be treated.

For orthoptists, there is a need to determine whether actual amblyopia treatment approaches the established standard of care, if it exists at all. Establishing CPG and validating uniform standards across the world, so that clinical outcomes in amblyopia treatment can meaningfully be compared, may take many years. The challenge is daunting but necessary; the need is timely.

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