Evidence Update

Summary of a Cochrane Review

Tuberculosis Series

Does receiving TB education and counselling help patients to complete TB treatment?

TB education or counselling may help children and adult patients to complete treatment for latent TB, but the size of the effect may vary depending on the specific setting and intervention.

Researchers from the Cochrane Collaboration conducted a review into the effects of patient education and/or counselling on the completion of tuberculosis (TB) treatment. Three trials (including 1437 participants) of patients being treated for latent TB infection were identified.

Why is adherence to TB treatment important?

Many TB patients do not take their TB medication as prescribed. Non-adherence to TB medication can result in a longer period of infectiousness, an increased risk of the patient transmitting TB to others, the emergence of drug-resistance, increased severity of the disease and possibly death.

What is patient education and counselling and how might it improve adherence to TB treatment?

Patient education is the deliberate provision of complete and current information about the patient's health with the aim of changing the patient's knowledge, attitude and practices to maintain or improve their health. Counselling includes both one-on-one or group interaction between the study participant(s) and a counselor. Counselling sessions provide tailored guidance and problem-solving skills to help patients improve the way they manage their health problem. Educating or counselling patients about their health helps create an atmosphere of trust, enhances the healthcare provider-patient relationship and empowers patients to participate in their own health care. Patient education and counselling aims to ensure that people have sufficient knowledge, understanding and skills to make *informed* choices and actively participate in their own health care.

What does the research tell us?

The review included 3 RCTs. Two assessed education alone and one assessed education combined with counselling. All included patients were being treated for latent TB. All three trials had methodological weaknesses.

The main limitation was lack of blinding of the participants, personnel and outcome assessors. Allocation concealment was not reported in any of the trials and two did not report on method of random sequence generation. Participants included children and their mothers, prisoners and adolescents. None of the trials reported on incidence of active TB in these patients. Providing patient education to prison inmates and to mothers of children receiving treatment for latent TB infection significantly improved TB treatment completion rates (2 RCTs). Adolescents being treated for latent TB infection and receiving peer counselling were no more likely to complete TB treatment than those receiving usual care (1 RCT). In this trial usual care included face-to-face educational services.

Are the review findings reliable?

The search for relevant trials was comprehensive. The review was up to date when it was conducted in November 2011 but it is no longer. The systematic review was generally well conducted with explicit selection criteria, appropriate steps to minimize bias and errors in the review process, formal assessment of the risk of bias in the primary studies and appropriate synthesis and interpretation.

Can the results of the research be applied to my setting?

The included trials were conducted in the USA and Spain in adolescents, prison inmates and mothers of children receiving treatment for latent TB. There are currently no RCTs investigating the effect of patient education and/or counselling on TB treatment adherence in patients treated for active TB.

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The effects of education and counselling to help patients to complete TB treatment:

The results of the three trials are presented separately in the table below. The trials were not similar enough to combine in a single analysis.

			Patient education and counselling for promoting adherence to TB treatment Comparison: patient education and/or counselling versus standard care Outcome: treatment completion at 6 or 12 months				
Study or subgroup	Country	Participants	Follow-up	Education/ counselling	Standard care	Risk ratio [95% CI]	Explanation
Sanmarti 1993 (1) Counselling by nurse via telephone every 3 months vs no education	Spain	Mothers of children being treated for latent TB infection	12 months	75/80 (94%)	50/77 (65%)	1.44 [1.21, 1.72]	Telephonic counselling by nurse every 3 months significantly increased the likelihood of treatment completion by 44% compared to standard care
Sanmarti 1993 (1) Counselling by nurse via home visit every 3 months vs no education				75/79 (95%)	50/77 (65%)	1.46 [1.23, 1.74]	Counselling by nurse via home visit every 3 months significantly increased the likelihood of treatment completion by 46% compared to standard care
Sanmarti 1993 (1) Counselling by a physician in a clinic every 3 months vs no education				64/82 (78%)	50/77 (65%)	1.20 [0.98, 1.47]	Counselling by physician in clinic every 3 months increased the likelihood of treatment completion by 20% compared to standard care (not a significant increase)
Morisky 2001 (2) Peer counselling at least every 2 weeks vs standard care	USA	Adolescent patients	6 months	155/199 (78%)	147/195 (75%)	1.03 [0.93, 1.15]	Peer counselling every 2 weeks did not significantly improve TB treatment adherence compared to standard care
White 2002 (3) Education sessions every 2 weeks	USA	Prison inmates being treated for latent TB infection following release from prison	6 months	24/107 (22%)	12/104 (12%)	1.94 [1.03, 3.68]	Education session every 2 weeks increased the likelihood of treatment completion by 94%

More information

This summary is based on the following systematic review:
M'Imunya JM,KredoT,Volmink J. Patient education and counselling for promoting adherence to treatment for tuberculosis. *Cochrane Database of Systematic Reviews* 2012, Issue 5. Art. No.: CD006591. DOI: 10.1002/14651858.CD006591.pub2.

What is a systematic review?
A systematic review seeks to answer a well formulated and specific question by identifying, critically appraising, and summarising the results of all relevant trials, published and unpublished, according to pre-stated and transparent methods.

What is the Cochrane Collaboration?
The Cochrane Collaboration is an international network of more than 28,000 people from over 100 countries. The collaboration is one of the biggest producers of systematic reviews on the effects of healthcare interventions, and Cochrane Systematic Reviews are recognized internationally as the benchmark for high quality information. The *Cochrane Database of Systematic Reviews* is available from www.thecochranelibrary.com and free for eligible countries.

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