CURRENT PHARMACOLOGICAL TREATMENT OPTIONS AND MANAGEMENT OF GUILLAIN-BARRE SYNDROME (GBS): AN UPDATED SYSTEMATIC REVIEW

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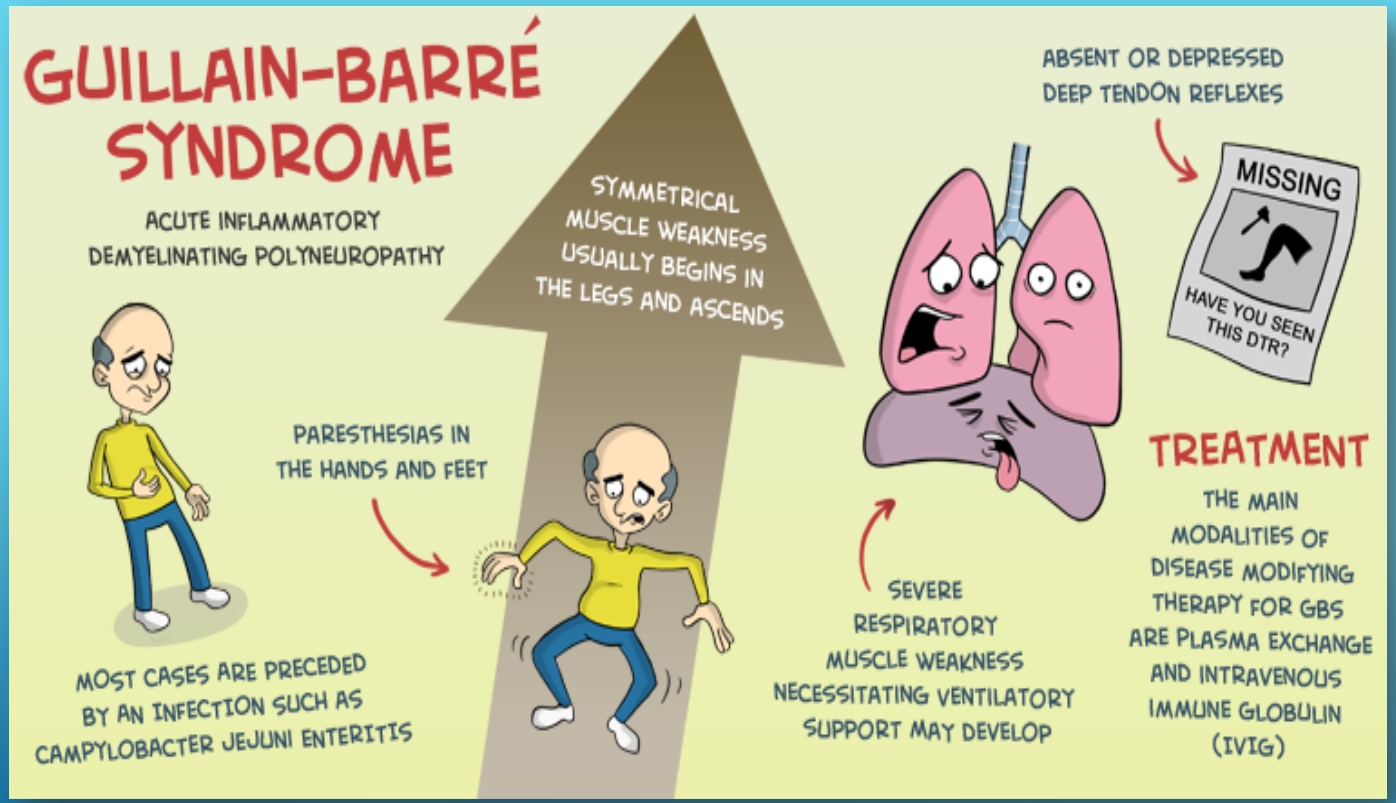
INTRODUCTION



Adopted from www.medicom.net

INTRODUCTION

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- Most well-designed epidemiological studies of GBS return an annual incidence of around 1-2 cases per 100,000
- A retrospective study conducted by Thomas M et al, reported that a total of 284 patients were diagnosed with GBS during a period of 5 years in a tertiary care hospital.

Mathew T, Srinivas M, Nadig R, Arumugam R, Sarma GR. Seasonal and monthly trends in the occurrence of Guillain-Barre syndrome over a 5-year period: A tertiary care hospital-based study from South India. Ann Indian Acad Neurol. 2014 Apr;17(2):239-41

AAN GUIDELINES FOR GBS MANAGEMENT

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Evidence for Immunotherapy in GBS management

	Plasma Exchange (PE)	IV Immunoglobulin (IVIg)	Combined Treatments	Corticosteroids
Strong evidence supports	PE recommended in nonambulant patients within 4 weeks of onset of neuropathic symptoms. (Level A*, Class II**)	IVIg recommended in nonambulant patients within 2 weeks of onset of neuropathic symptoms. (Level A, Class II)	Sequential treatment with PE followed by IVIg does not have a greater effect than either treatment given alone. (Level A, Class I)	Steroids not recommended in the treatment of GBS. (Level A, Class I)

	Plasma Exchange (PE)	IV Immunoglobulin (IVIg)
Good evidence supports	PE recommended for ambulant patients within 2 weeks of onset of neuropathic symptoms. (Level B, limited Class II) If PE started within 2 weeks of onset, there are equivalent effects of PE and IVIg in patients requiring walking aids. (Level B, Class I) PE is a treatment option for children with severe GBS. (Level B, derived from Class II evidence in adults)	IVIg recommended in nonambulant patients started within 4 weeks from the onset of neuropathic symptoms. (Level B, Class II) If started within 2 weeks of onset, IVIg has comparable efficacy to PE in patients requiring walking aids if started within 2 weeks of onset. (Level B, Class I) IVIg is a treatment option for children with severe GBS. (Level B, derived from Class II evidence in adults)

AIM, OBJECTIVE AND METHODOLOGY

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To update the best available treatment options available for the management of GBS

Participants **-** Children and adults with GBS of all degrees of severity

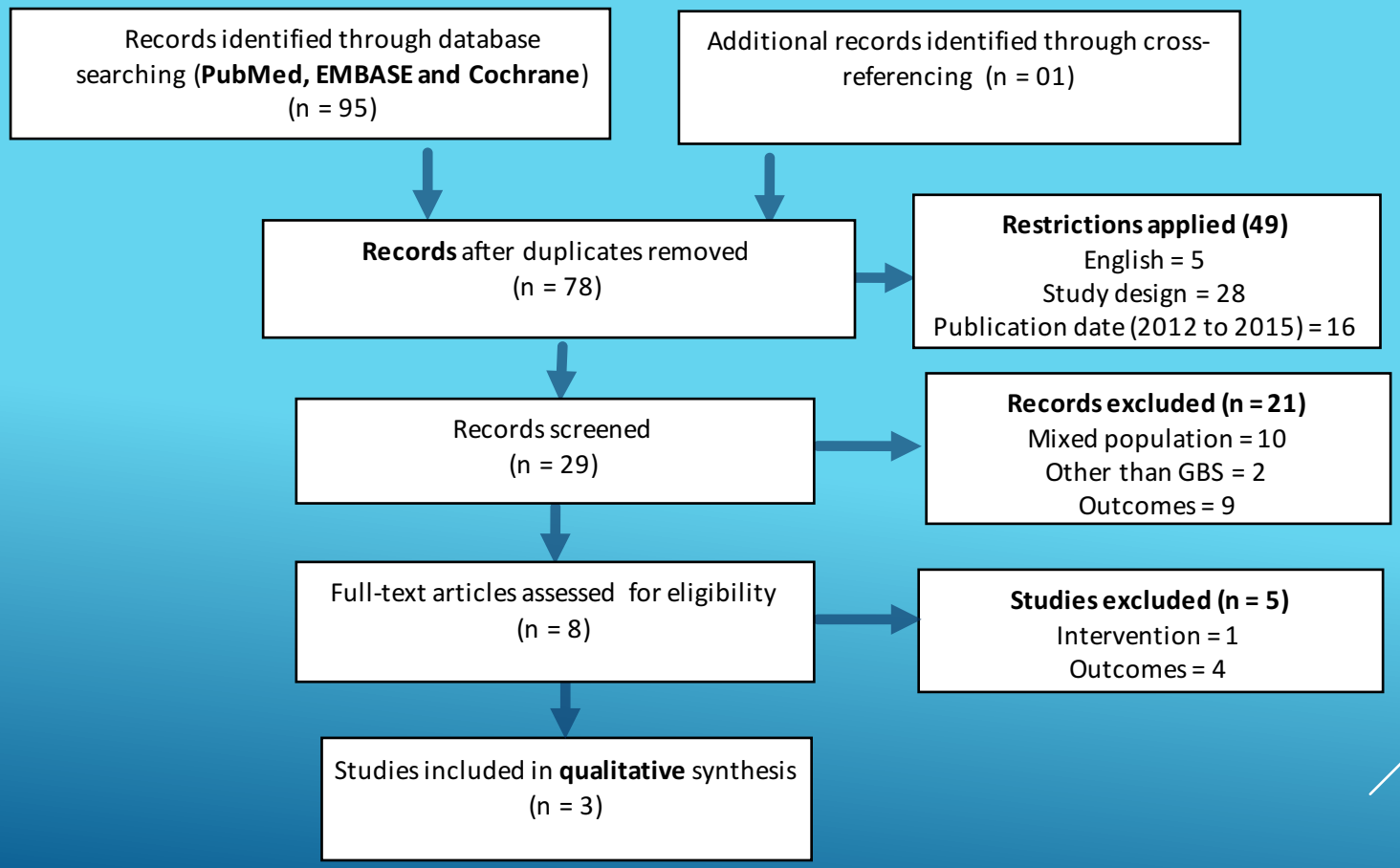
Interventions **-** All available treatments

Comparators **-** No treatment, placebo treatment, or other immunomodulatory and active treatments

Study design - Randomised Controlled Trials

Study Outcomes **-** Disability grade, death or disability (inability to walk without aid) after 12 months, relapse, and adverse events

SEARCH RESULTS



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RESULTS

- One trial with 174 GBM patients, showed significantly more improvement in disability grade after four weeks with IVIg than plasma exchange treatment (mean difference 2.0).

- Another trial (n=9) demonstrated improved full strength muscle with the use of IVIg therapy compared to placebo at 2 weeks on Medical Research Council grading system score.

- At 6 months, the proportion of patients with recovery of full strength muscle was found to be higher in subjects receiving treatment with IVIg in the first 2 weeks from symptoms onset (80% vs. 41.38%) compared to patients who received treatment after 15 -25 days from symptoms onset.

CONCLUSION

- GBS syndrome receiving IVIg therapy appears to be associated with an improved disability grade and higher recovery of full strength muscle.

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"Further trials of ongoing/completed stage are available on ClinicalTrials.Gov database assessing the benefits and harms of GB-0998 (Venoglobulin-IH), NPB-01, Eculizumab, Intravenous Immunoglobulin, plasma exchange, Menactra Meningococcal Vaccination, 4-aminopyridine, plasmapheresis or Human Immunoglobulin Infusion, Ross River Virus (RRV) Vaccine, Nimenrix™, Meningococcal vaccine GSK134612, and magnesium threonate for GBS treatment."

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THANK YOU!

For further information, contact me on:

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