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Comparative Effectiveness and Appropriateness

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Appropriateness

- Doing the right thing with a healthcare intervention (net positive effect)
- Measured by a process including best evidence, balanced expert opinion (panel), chart review of real cases
- Method developed at RAND/UCLA in 1980s
- Has been used to assess performance of many diagnostic and therapeutic interventions

Appropriateness Examples

1. Carotid Endarterectomy
 - An operation on the carotid artery in the neck to prevent stroke

2. Intravenous Immunoglobulin (IVIG)
 - A blood product to treat immune and infectious diseases

Western Canadian Carotid Endarterectomy Appropriateness Study

- RAND/UCLA method
- Canadian expert panel
- 203 scenarios rated
- reviewed 3000 charts from cases done in Manitoba, Saskatchewan, Alberta and British Columbia for 2000 & 2001

Western Canada Carotid Endarterectomy Appropriateness Study

Overall Results

Appropriate	52.3%
Uncertain	37.4% (mostly asymptomatic)
Inappropriate	10.3% (minimal stenosis or occluded)

The Appropriateness of Intravenous Immunoglobulin (IVIg)

- RAND method
- Over 3000 cases in Alberta and British Columbia in 2001 and 2003

Appropriateness IVIG Use by Province

	Appropriate (%)	Uncertain (%)	Inappropriate (%)
AB	45.4	18.8	35.8
BC	60.6	16.4	23.0
Overall	54.1	17.4	28.5

Appropriateness and Comparative Effectiveness

Questions: Can it work? → Does it work?

Concepts: (Efficacy) (Effectiveness)

Methods: RCTs Comparative Effectiveness
 Appropriateness

Appropriateness and Comparative Effectiveness

Key Differences

- **Comparative Effectiveness** studies examine how the appropriate use of efficacious interventions work in a diverse population
- **Appropriateness** studies examine whether interventions are applied appropriately in a diverse population

Conclusion

- Healthcare interventions in the 'real' world are often used **inappropriately**, which reduces effectiveness
- This needs to be taken into account in comparing the overall effectiveness of treatments and offers an avenue for improvement