HTA Rapid Reviews

What are they?
How can they improve decision making?

How to do it?

Agustín Ciapponi
Cochrane Argentina Director, Instituto de Efectividad Clínica y Sanitaria (IECS), Argentina
• SR/HTAs take unacceptably long time but information is needed now!

Rapid reviews/HTAs have emerged as an approach to synthesizing evidence, for informing decision makers in health care settings.

It is uncertain if much shorter timeframe could be adequate to capture properly the key evidence.
Traditional systematic reviews

Rapid reviews
Products and terminology

- SR and HTA (6 months to ~3 years)
- technology assessment report (6-9 months)
- rapid assessment (6 months)
- accelerated SR (4 months)
- rapid review (3 months)
- tech notes (6 weeks – 6 months)
- technology overview (3 months)
- rapid response (1 week - 1 month)
- mini HTA (month?)
- rapid HTA (2-4 weeks)
- quick note (5-7 days)
- ultra rapid response (hours – days)
- scope searches (1/2 day)
How do we develop a procedure for the best available answer within a proper timeframe?
Trading certainty for speed - how much uncertainty are decisionmakers and guideline developers willing to accept when using rapid reviews: an international survey.

325 (58.5%) of 556 decision-makers and guideline developers worldwide completed our survey.
Several agencies increasingly do rapid reviews/responses (23 out of 25 surveyed agencies did rapid reviews in 2006)

But they varied in:

- methodology
- search strategy
- quality assessment
- restriction on study type
- Analysis
- Economic evaluations
IECS Setting

IECS is an Argentinean HTA agency, that provides reports to public institutions, social security and private insurance entities.

Since 2012 we produce **Ultra-rapid HTAs**, made in up to 3 days, aiming to solve specific coverage problems, often related to a single patient needs.

The **rapid-HTAs** allow a more exhaustive assessment of the PICO question applicable to **similar patients**.

Decision-makers systematically complete a brief survey on usefulness and satisfaction within two weeks of receiving the **Ultra-rapid HTAs**.
Ultra-rapid HTA
(produced in 2-3 days)

1. ≠ Conclusions, amount and direction of the evidence?

Rapid-HTA
(produced in 4-8 weeks)

2.a What is the decision-makers’ perception about ultra-rapid HTAs?

2.b Which is the agreement between coverage decisions and ultra-rapid HTAs’ conclusions
### Main features of HTAs

<table>
<thead>
<tr>
<th>Feature</th>
<th>Ultra-rapid</th>
<th>Rapid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elaboration time</td>
<td>2-3 days</td>
<td>4-8 weeks</td>
</tr>
<tr>
<td>Developer training</td>
<td>High</td>
<td>Moderate-High</td>
</tr>
<tr>
<td>Supervision</td>
<td>1 Senior tutor</td>
<td>Whole HTA team</td>
</tr>
<tr>
<td>Previous scoping</td>
<td>Not formally</td>
<td>Yes</td>
</tr>
<tr>
<td>Focused search</td>
<td>Highly</td>
<td>Moderately</td>
</tr>
<tr>
<td>Evidence source</td>
<td>SRs, CPGs, HTAs, Coverage policies, complementary primary studies</td>
<td></td>
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Methods

We selected pair of documents (ultra-rapid HTAs & rapid-HTAs) oriented to the same research question.

All the rapid-HTAs were published after the ultra-rapid HTAs, within the following 12 months.

The additional evidence identified by the rapid-HTAs, which was compiled at a later search date than the ultra-rapid HTA, was excluded and the conclusions modified wherever necessary.

Pairs of independent researchers extracted outcomes, and disagreements were solved by a third researcher.

We analyzed the routine survey to study decision-makers’ perception and compared their coverage decision against the conclusions of the reports.
We selected 32 pairs of documents and 24 that met inclusion criteria were finally included.

92% of rapid-HTAs included more evidence than ultra-rapid-HTAs

<table>
<thead>
<tr>
<th>Included Evidence</th>
<th>ultra-rapid-HTAs (Mean ± SD)</th>
<th>rapid-HTAs (Mean ± SD)</th>
<th>Difference (95% CI)</th>
<th>P value (t test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidelines</td>
<td>2</td>
<td>5.5 ± 5.5</td>
<td>3.5 (1.2 - 5.8)</td>
<td>0.0043</td>
</tr>
<tr>
<td>Systematic Reviews</td>
<td>1.7 ± 1.5</td>
<td>3.4 ± 3.5</td>
<td>2.2 (0.6 - 3.8)</td>
<td>0.0071</td>
</tr>
<tr>
<td>RCTs</td>
<td>0.2 ± 0.7</td>
<td>1.1 ± 1.2</td>
<td>0.9 (0.3 - 1.5)</td>
<td>0.0028</td>
</tr>
</tbody>
</table>

The rapid-HTAs included 50% more safety and quality of life outcomes than ultra-rapid-HTAs in this sample
Despite the more evidence considered by rapid-HTAs, there was a 96% (95% CI 78.9 to 99.9) of conclusion matching with ultra-rapid-HTAs. The only one mismatch was because a rapid-HTAs considered a technology for selected cases and ultra-rapid-HTAs considered the same technology as experimental.
Desde mayo de 2014 a febrero de 2016 se recopilaron un total de 68 respuestas de 117 informes (58%).

Los 3 consultorios más frecuentes fueron relacionados con cáncer, trastornos neurológicos y musculosqueléticos; y la mitad de los casos estaban relacionados con medicamentos.

En 10% de los casos, había decisiones pendientes de cobertura (conclusión).

![Diagrama de pastel mostrando porcentajes de decisiones de cobertura: Rechazadas: 47.1%, Aceptadas: 42.6%)](image_url)
Usefulness

Neither useful nor useless
4%

Pretty useful
25%

Very useful
71%
Influence

- Not influential: 2%
- Barely influential: 13%
- Pretty influential: 38%
- Very influential: 47%
Decision improvement

- Very barely: 1%
- Barely: 9%
- Pretty: 40%
- A lot: 50%
Results: Satisfaction

- Very satisfactory: 81%
- Satisfactory: 18%
- Indifferent: 1%
Agreement between coverage decision and reports’ conclusions

- Agreement: 77%
- No agreement: 13%
- Pending decision: 10%
Conclusions

✓ We found no serious mismatching between ultra-rapid HTAs & rapid-HTAs.

✓ Although ultra-rapid HTAs included less amount of evidence and in this sample not reported important outcomes as safety and quality of life, ultra-rapid HTAs seem to be a reliable source for the short-term decision-making.

👍 Most decision makers found ultra-rapid HTAs useful and their final decisions were influenced and improved by them.

👍 Agreement with final decisions was high.
The timeframe to produce evidence is becoming shorter: from **quick and dirty** to **quick and best**.

It is critical to determine that **ultra-rapid-HTAs** produced by highly trained teams are also reliable for the short-term decision-making in other settings.

Although there was a high conclusion-matching, the **“slower” evidence synthesis** are still useful since they provide a more complete evidence picture and a possibly better informed decision-making.
Need for standardization!