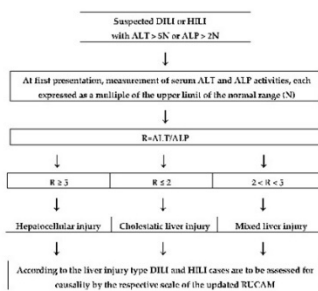


Escala de avaliação de causalidade RUCAM-CIOMS

Objetivo: Avaliar probabilidade de a lesão hepática ser provocada por agente tóxico

Variáveis, cálculo e interpretação:



Items for Hepatocellular Injury	Score	Result
1. Time to onset from the beginning of the drug/herb		
• 5-90 days (rechallenge: 1-15 days)	+2	0
• <5 or >90 days (rechallenge: >15 days)	+1	0
Alternative: Time to onset from cessation of the drug/herb		
• ≤15 days (except for slowly metabolized chemicals: >15 days)	+1	0
2. Course of ALT after cessation of the drug/herb		
Percentage difference between ALT peak and N		
• Decrease ≥ 50% within 8 days	+3	0
• Decrease ≥ 50% within 30 days	+2	0
• No information or continued drug use	0	0
• Decrease ≥ 50% after the 30th day	0	0
• Decrease < 50% after the 30th day or recurrent increase	-2	0
3. Risk factors		
• Alcohol use (current drinks/d: >2 for women, >3 for men)	+1	0
• Alcohol use (current drinks/d: ≤2 for women, ≤3 for men)	0	0
• Age ≥ 55 years	+1	0
• Age < 55 years	0	0
4. Concomitant drug(s)/herb(s)		
• None or no information	0	0
• Concomitant drug/herb with incompatible time to onset	0	0
• Concomitant drug/herb with compatible or suggestive time to onset	-1	0
• Concomitant drug/herb known as hepatotoxin and with compatible or suggestive time to onset (delete marking right side above)	-2	0
• Concomitant drug/herb with evidence for its role in this case (positive rechallenge or validated test)	-3	0
5. Search for alternative causes	Tick if negative	Tick if not done
Group I (7 causes)		
• HAV: Anti-HAV-IgM	0	0
• Hepatobiliary sonography / colour Doppler	0	0
• HCV: Anti-HCV, HCV-RNA	0	0
• HEV: Anti-HEV-IgM, anti-HEV-IgG, HEV-RNA	0	0
• Hepatobiliary sonography/colour Doppler sonography of liver vessels/ endosonography/CT/MRC	0	0
• Alcoholism (AST/ALT ≥ 2)	0	0
• Acute recent hypotension history (particularly if underlying heart disease)	0	0
Group II (6 causes)		
• Complications of underlying disease(s) such as sepsis, metastatic malignancy, autoimmune hepatitis, chronic hepatitis B or C, primary biliary cholangitis or sclerosing cholangitis, genetic liver disease	0	0
• Infection suggested by PCR and titer change for		
• CMV (anti-CMV-IgM, anti-CMV-IgG)	0	0
• EBV (anti-EBV-IgM, anti-EBV-IgG)	0	0
• HSV (anti-HSV-IgM, anti-HSV-IgG)	0	0
• VZV (anti-VZV-IgM, anti-VZV-IgG)	0	0
Evaluation of groups I and II		
• All causes—groups I and II—reasonably ruled out	+2	0
• The 7 causes of group I ruled out	+1	0
• 6 or 5 causes of group I ruled out	0	0
• Less than 5 causes of group I ruled out	-2	0
• Alternative cause highly probable	-3	0
6. Previous hepatotoxicity of the drug/herb		
• Reaction labelled in the product characteristics	+2	0
• Reaction published but unlabelled	+1	0
• Reaction unknown	0	0
7. Response to unintentional reexposure		
• Doubling of ALT with the drug/herb alone, provided ALT below 5N before reexposure	+3	0
• Doubling of ALP with the drug(s)/herb(s) already given at the time of first reaction	+1	0
• Increase of ALP but less than N in the same conditions as for the first administration	-2	0
• Other situations	0	0
Total score for the case		0

Items for Cholestatic or Mixed Liver Injury	Score	Result
1. Time to onset from the beginning of the drug/herb		
• 5-90 days (rechallenge: 1-90 days)	+2	0
• <5 or >90 days (rechallenge: >90 days)	+1	0
Alternative: Time to onset from cessation of the drug/herb		
• (except for slowly metabolized chemicals: ≤30 days)	+1	0
2. Course of ALP after cessation of the drug/herb		
Percentage difference between ALP peak and N		
• Decrease ≥ 50% within 180 days	+2	0
• Decrease < 50% within 180 days	+1	0
• No information, persistence, increase, or continued drug/herb use	0	0
3. Risk factors		
• Alcohol use (current drinks/d: >2 for women, >3 for men)	+1	0
• Alcohol use (current drinks/d: ≤2 for women, ≤3 for men)	0	0
• Pregnancy	+1	0
• Age ≥ 55 years	+1	0
• Age < 55 years	0	0
4. Concomitant use of drug(s)/herb(s)		
• None or no information	0	0
• Concomitant drug/herb with incompatible time to onset	0	0
• Concomitant drug/herb with compatible or suggestive time to onset	-1	0
• Concomitant drug/herb known as hepatotoxin and with compatible or suggestive time to onset	-2	0
• Concomitant drug/herb with evidence for its role in this case (positive rechallenge or validated test)	-3	0
5. Search for alternative causes	Tick if negative	Tick if not done
Group I (7 causes)		
• HAV: Anti-HAV-IgM	0	0
• HBV: HBsAg, anti-HBc-IgM, HBV-DNA	0	0
• HCV: Anti-HCV, HCV-RNA	0	0
• HEV: Anti-HEV-IgM, anti-HEV-IgG, HEV-RNA	0	0
• Hepatobiliary sonography/colour Doppler sonography of liver vessels/endosonography/CT/MRC	0	0
• Alcoholism (AST/ALT ≥ 2)	0	0
• Acute recent hypotension history (particularly if underlying heart disease)	0	0
Group II (5 causes)		
• Complications of underlying disease(s) such as sepsis, metastatic malignancy, autoimmune hepatitis, chronic hepatitis B or C, primary biliary cholangitis or sclerosing cholangitis, genetic liver diseases	0	0
• Infection suggested by PCR and titer change for		
• CMV (anti-CMV-IgM, anti-CMV-IgG)	0	0
• EBV (anti-EBV-IgM, anti-EBV-IgG)	0	0
• HSV (anti-HSV-IgM, anti-HSV-IgG)	0	0
• VZV (anti-VZV-IgM, anti-VZV-IgG)	0	0
Evaluation of group I and II		
• All causes—groups I and II—reasonably ruled out	+2	0
• The 7 causes of group I ruled out	+1	0
• 6 or 5 causes of group I ruled out	0	0
• Less than 5 causes of group I ruled out	-2	0
• Alternative cause highly probable	-3	0
6. Previous hepatotoxicity of the drug/herb		
• Reaction labelled in the product characteristics	+2	0
• Reaction published but unlabelled	+1	0
• Reaction unknown	0	0
7. Response to unintentional reexposure		
• Doubling of ALP with the drug/herb alone, provided ALP below 2N before reexposure	+3	0
• Doubling of ALP with the drug(s)/herb(s) already given at the time of first reaction	+1	0
• Increase of ALP but less than N in the same conditions as for the first administration	-2	0
• Other situations	0	0
Total score for the case		0

Total score:
 0 excluded causality
 1-2 unlikely
 3-5 possible
 6-8 probable
 >9 highly probable

Danan G, Teschke R. RUCAM in drug and herb induced liver injury: the update. Int J Mol Sci 2015;17:E14.

Calculador automático:

<https://www.rccc.eu/scores/RUCAM.html>

