

INFORME DE BÚSQUEDA Y SÍNTESIS DE COSTO-EFECTIVIDAD

Actualización Guía de Práctica Clínica

Hepatitis C 2019

PREGUNTA: EN PERSONAS CON DIAGNÓSTICO CONFIRMADO DE HEPATITIS C ¿SE DEBE “REALIZAR MÉTODO DE ELASTOGRAFÍA TRANSICIONAL EN COMPARACIÓN” A “APRI”?

Uno de los factores a considerar para formular una recomendación en Guías de Práctica Clínica con la metodología “*Grading of Recommendations Assessment, Development and Evaluation*” es la relación entre la efectividad y los costos de las intervenciones a evaluar.

BÚSQUEDA DE EVALUACIONES ECONÓMICAS

Para determinar si la evidencia de costo-efectividad de las tecnologías sanitarias era necesaria se aplicaron los siguientes criterios en conjunto con el equipo de expertos:

- Mucha variabilidad en la práctica clínica.
- Incertidumbre relevante respecto a costo efectividad de intervenciones evaluadas.
- Cambio en práctica clínica acarrea altos beneficios en términos de salud.
- El cambio en la práctica clínica puede tener un impacto relevante en costos y el presupuesto del sistema de salud.

La búsqueda consideró estudios de costo-efectividad y revisiones sistemáticas de evaluaciones de costo-efectividad sobre realizar método de elastografía transicional versus la realización de APRI, en personas con diagnóstico confirmado de hepatitis C. Se identificaron términos MESH y términos de texto libre asociados a la población. La búsqueda consideró estudios publicados en inglés y español, en las siguientes bases de datos: MEDLINE, EMABASE, COCHRANE, GOOGLE, BRISA y en el National Institute for health and Care Excellence (NICE).

Ver detalle en Anexo 1 “*Términos de Búsqueda y Resultados de la búsqueda*”.

SÍNTESIS DE EVIDENCIA SEGÚN PREGUNTA

Luego de realizadas las búsquedas en todas las bases de datos y remover todos los duplicados, se obtuvieron en total 13 estudios. De estos, 6 fueron eliminados por título y abstract, mientras que los 7 restantes fueron descartados por no dar respuesta exacta a la pregunta en cuestión. De esta manera, ningún estudio fue seleccionado para extracción de datos.

RESUMEN DE LA EVIDENCIA BUSCADA

No se encontraron artículos relacionados con la pregunta de interés en ninguna de las bases de datos previamente mencionadas.

ANEXO 1: ESTRATEGIA DE BÚSQUEDA Y RESULTADOS DE LA BÚSQUEDA

	Términos libres	DECS	MeSH
P	Hepatitis C, Parenterally-Transmitted Non-A, Parenterally Transmitted Non A, Non B Hepatitis, PT-NANBH, Hepaciviruses, hepatitis c, hepacivirus	Hepatitis C, Hepacivirus	Hepatitis
I	Elasticity Imaging Technique, Tissue Elasticity Imaging, Elastography, Elastographies, Vibro Acoustography, Magnetic Resonance Elastography, Sonoelastography, Acoustic Radiation Force Impulse Imaging, ARFI Imaging, Elastogram, Transient elastography, Transient liver elastography, Fibroscan	Remoción de caries, remoción selectiva de caries, remoción parcial de caries	Elasticity Imaging Techniques
C	Aspartate transaminase to platelet ratio index, APRI, AST to Platelet Ratio Index, AST-to-Platelet Ratio Index	APRI, Aspartate transaminase to platelet ratio index, Índice Aspartato aminotransferasa plaquetas	No utilizado
O	Cost Benefit Analysis, Cost Effectiveness, Cost Utility Analysis, Economic Evaluation, Marginal Analysis, Pricing, Biomedical Technology Assessment, Health Technology Assessment, Economics, Willingness to pay, Health care cost, ICER, QALY, DALY, Quality Adjusted Life Years, Disability Adjusted Life Years, Incremental Cost Effectiveness Ratio	Análisis Costo Beneficio, Análisis Costo Efectividad, Análisis Costo Utilidad, Evaluación económica, Análisis de Precio, Tecnologías Biomédicas, Evaluación de tecnologías, Disponibilidad de pago, Costos en salud, Costos Sanitarios, ICER, QALY, DALY, Quality Adjusted Life Years, Disability Adjusted Life Years, Incremental Cost Effectiveness Ratio, AVAC, Año de vida ajustado por calidad, Razón costo efectividad, Año de vida ajustado por	Cost-benefit analysis, costs and cost analysis, technology assessment, biomedical

Base de datos	Fecha de búsqueda	Resultados	Resultados después de remover duplicados
Medline-Pubmed	27.08.2019	9	9
EMBASE	27.08.2019	10	3
NICE	27.08.2019	0	0
BRISA (RedETSA)	27.08.2019	0	0
COCHRANE	27.08.2019	0	0
GOOGLE	27.08.2019	1	1
Total	27.08.2019	1	13

Estrategias de Búsqueda

PUBMED

1	(((((((hepatitis c[MeSH Terms]) or hepacivirus[MeSH Terms]) or Parenterally-Transmitted Non-A, Non-B Hepatitis[Text Word]) or Parenterally Transmitted Non A, Non B Hepatitis[Text Word]) or PT-NANBH[Text Word]) or Hepatitis, Viral, Non-A, Non-B, Parenterally-Transmitted[Text Word]) or Hepaciviruses[Text Word] or hepatitis c[Text Word] or hepacivirus[Text Word]	89657
2	(((Aspartate transaminase to platelet ratio index[Text Word]) or APRI[Text Word]) or AST to Platelet Ratio Index[Text Word] or AST-to-Platelet Ratio Index[Text Word]	1220
3	((Elasticity Imaging Techniques[MeSH Terms]) or Elasticity Imaging Technique[Text Word]) or Imaging Technique, Elasticity[Text Word]) or Imaging Techniques, Elasticity[Text Word]) or Technique, Elasticity Imaging[Text Word]) or Techniques, Elasticity Imaging[Text Word]) or Tissue Elasticity Imaging[Text Word]) or Elasticity Imaging, Tissue[Text Word]) or Elasticity Imagings, Tissue[Text Word]) or Imaging, Tissue Elasticity[Text Word]) or Imagings, Tissue Elasticity[Text Word]) or Tissue Elasticity Imagings[Text Word]) or Elastography[Text Word]) or Elastographies[Text Word]) or Vibro-Acoustography[Text Word]) or Vibro Acoustography[Text Word]) or Vibro-Acoustographies[Text Word]) or Magnetic Resonance Elastography[Text Word]) or Elastographies, Magnetic Resonance[Text Word]) or Elastography, Magnetic Resonance[Text Word]) or Magnetic Resonance Elastographies[Text Word]) or Resonance Elastographies, Magnetic[Text Word]) or Resonance Elastography, Magnetic[Text Word]) or Sonoelastography[Text Word]) or Sonoelastographies[Text Word]) or Acoustic Radiation Force Impulse Imaging[Text Word]) or ARFI Imaging[Text Word] or ARFI Imagings[Text Word] or Imaging, ARFI[Text Word] or Imagings, ARFI[Text Word] or Elastograms[Text Word] or Elastogram[Text Word] or Transient elastography[Text Word] or Transient liver elastography[Text Word] or Transient elastographies[Text Word] or Transient liver elastographies[Text Word] or Fibroscan[Text Word]	14440
4	(fibrosis[Mesh Terms] or fibrosis[Text Word])	234407
5	((cost-benefit analysis[MeSH Terms]) or (costs and cost analysis[MeSH Terms])) or technology assessment, biomedical[MeSH Terms]) or Analyses, Cost-Benefit[Text Word]) or Analysis, Cost-Benefit[Text Word]) or Cost-Benefit Analyses[Text Word]) or Cost Benefit Analysis[Text Word]) or Analyses, Cost Benefit[Text Word]) or Analysis, Cost Benefit[Text Word]) or Cost Benefit Analyses[Text Word]) or Cost Effectiveness[Text Word]) or Effectiveness, Cost[Text Word]) or Cost-Benefit Data[Text Word]) or Cost Benefit Data[Text Word]) or Data, Cost-Benefit[Text Word]) or Cost-Utility Analysis[Text Word]) or Analyses, Cost-Utility[Text Word]) or Analysis, Cost-Utility[Text Word]) or Cost Utility Analysis[Text Word]) or Cost-Utility Analyses[Text Word]) or Economic Evaluation[Text Word]) or Economic Evaluations[Text Word]) or Evaluation, Economic[Text Word]) or Evaluations, Economic[Text Word]) or Marginal Analysis[Text Word]) or Analyses, Marginal[Text Word]) or Analysis, Marginal[Text Word]) or Marginal Analyses[Text Word]) or Cost Benefit[Text Word]) or (Costs[Text Word] and Benefits[Text Word])) or (Benefits[Text Word] and Costs[Text Word])) or Cost-Effectiveness Analysis[Text Word]) or Analysis, Cost-Effectiveness[Text Word]) or Cost Effectiveness Analysis[Text Word]) or (Costs[Text Word] and Cost Analysis[Text Word])) or Affordability[Text Word] or Affordabilities[Text Word] or Cost-Minimization Analysis[Text Word]) or Analyses, Cost-Minimization[Text Word]) or Analysis, Cost-Minimization[Text Word]) or Cost Minimization Analysis[Text Word] or Cost-Minimization Analyses[Text Word] or Pricing[Text Word] or Cost[Text Word] or Costs[Text Word] or Biomedical Technology Assessment[Text Word]) or Technology Assessment, Health[Text Word]) or Assessment, Health Technology[Text Word]) or Assessments, Health Technology[Text Word] or Health Technology Assessment[Text Word]) or Health Technology Assessments[Text Word] or Technology Assessments, Health[Text Word] or Assessment, Biomedical Technology[Text Word]) or Assessments, Biomedical Technology[Text Word] or Biomedical Technology Assessments[Text Word] or Technology Assessments, Biomedical[Text Word] or Technology Assessment[Text Word] or Assessment, Technology[Text Word] or Assessments, Technology[Text Word] or Technology Assessments[Text Word] or Economics[Text Word]) or willingness to pay[Text Word] or willingness-to-pay[Text Word] or health care cost[Text Word] or ICER[Text Word] or QALY[Text Word] or DALY[Text Word] or Quality-Adjusted-Life-Years[Text Word] or Quality Adjusted Life Years[Text Word] or Disability-Adjusted-Life-Years[Text Word] or Disability	908463

	Adjusted Life-Years[Text Word] or Incremental Cost Effectiveness Ratio[Text Word]	
6	(pubmed books[filter] or Case Reports[ptyp] or Clinical Study[ptyp] or systematic[sb] or Government Document[ptyp] or Clinical Trial, Phase III[ptyp] or Clinical Trial, Phase II[ptyp] or Clinical Trial, Phase I[ptyp] or Clinical Trial Protocol[ptyp] or Clinical Trial[ptyp] or Clinical Trial, Phase IV[ptyp] or Comparative Study[ptyp] or Controlled Clinical Trial[ptyp] or English Abstract[ptyp] or Evaluation Studies[ptyp] or Guideline[ptyp] or Journal Article[ptyp] or Lecture[ptyp] or Meta-Analysis[ptyp] or Multicenter Study[ptyp] or Observational Study[ptyp] or Overall[ptyp] or Practice Guideline[ptyp] or Review[ptyp] or Randomized Controlled Trial[ptyp] or Pragmatic Clinical Trial[ptyp])	28489465
7	("1999/01/01"[PDAT] : "2019/08/27"[PDAT])	17045958
8	(English[lang] or German[lang] or Portuguese[lang] or Spanish[lang])	26612888
9	#1 and #2 and #3 and #4 and #5 and #6 and #7 and #8	9

Estudios encontrados en Pubmed, usando filtro inicial, pero que no abordaban finalmente la pregunta de investigación:

- Paranaguá-Vezozzo, D. C., Andrade, A., Mazo, D. F., Nunes, V., Guedes, A. L., Ragazzo, T. G., ... & Carrilho, F. J. (2017). Concordance of non-invasive mechanical and serum tests for liver fibrosis evaluation in chronic hepatitis C. *World journal of hepatology*, 9(8), 436
- Cepeda, J. A., Solomon, S. S., Srikrishnan, A. K., Nandagopal, P., Balakrishnan, P., Kumar, M. S., ... & Mehta, S. H. (2016, May). Serum fibrosis markers for the diagnosis of liver disease among people with chronic hepatitis C in Chennai, India. In *Open forum infectious diseases* (Vol. 3, No. 3, p. ofw156). Oxford University Press.
- Matta, B., Lee, T. H., & Patel, K. (2016). Use of non-invasive testing to stage liver fibrosis in patients with HIV. *Current HIV/AIDS Reports*, 13(5), 279-288.
- Acoustic Radiation Force Impulse Imaging for Diagnosis and Monitoring of Liver Fibrosis in Patients with Hepatitis C: A Review of Diagnostic Accuracy, Clinical Effectiveness, Cost-Effectiveness, and Guidelines [Internet]. Ottawa (ON): Canadian Agency for Drugs and Technologies in Health; 2016 Apr 18.
- Stasi, C., & Milani, S. (2016). Non-invasive assessment of liver fibrosis: Between prediction/prevention of outcomes and cost-effectiveness. *World journal of gastroenterology*, 22(4), 1711.
- Shehab, H., Elattar, I., Elbaz, T., Mohey, M., & Esmat, G. (2014). CUFA algorithm: assessment of liver fibrosis using routine laboratory data. *Journal of viral hepatitis*, 21(12), 956-964.
- Zarski, J. P., Sturm, N., Guechot, J., Zafrani, E. S., Vaubourdolle, M., Thoret, S., ... & Bosson, J. L. (2013). Contribution of the ELFG test in algorithms of non-invasive markers towards the diagnosis of significant fibrosis in chronic hepatitis C. *PloS one*, 8(3), e59088.
- Crisan, D., Radu, C., Lupsor, M., Sparchez, Z., Grigorescu, M. D., & Grigorescu, M. (2012). Two or more synchronous combination of noninvasive tests to increase accuracy of liver fibrosis assesment in chronic hepatitis C; results from a cohort of 446 patients. *Hepatitis monthly*, 12(3), 177.
- Cobbold, J. F. L., Crossey, M. M. E., Colman, P., Goldin, R. D., Murphy, P. S., Patel, N., ... & Taylor-Robinson, S. D. (2010). Optimal combinations of ultrasound-based and serum markers of disease severity in patients with chronic hepatitis C. *Journal of viral hepatitis*, 17(8), 537-545.

EMBASE

1	(Economic evaluation or biomedical technology assessment or health economics or quality adjusted life year or disability-adjusted life year).sh. or (Economic evaluation* or disease management or health economics or cost minimization analysis or cost minimization or cost-minimization or cost benefit analysis or cost-benefit or cost benefit or cost control or cost effectiveness analysis or cost-effectiveness or cost effectiveness or cost minimization analysis or cost of illness or cost utility analysis or cost utility or cost-utility or biomedical technology assessment or health technology assessment or biomedical technology assessment or high-cost technology or health care quality or health economics or dental economics or economics, dental or economics, hospital or hospital economics or economics, medical or medical economics or medical, nursing or nursing economics or economic aspect or health care concept or health care concepts or device economics or pharmacoeconomics or cost* or benefit* or pricing* or affordabilit* or marginal analysis or quality adjusted life year or qaly or quality-adjusted-life-year or disease burden or quality of life or disability adjusted life year or DALY or DALYs or disability-adjusted life year or disability-adjusted-life-year or ICER or Willingness to pay or Willingness-to-pay or Incremental cost effectiveness ratio or Incremental-cost-effectiveness-ratio).tw.	1943244
2	(Transient elastography).sh. or (Transient elastography or Transient elastography technique or fibroscan).tw.	7497
3	(Hepatitis c or hepacivirus).sh or (Hepatitis c or Hepacivirus or Hepaciviruses or parenterally transmitted non a non b hepatitis or Parenterally Transmitted Non A, Non B Hepatitis or PT-NANBH or Hepatitis, Viral, Non-A, Non-B, Parenterally-Transmitted).tw.	137308
4	(Aspartate transaminase to platelet ratio index or APRI or AST to Platelet Ratio Index or AST-to-Platelet Ratio Index).tw.	2998
5	Fibrosis.sh or fibrosis.tw	278703
6	1 and 2 and 3 and 4 and 5	28
7	limit 6 to (english or german or portuguese or spanish)	28
8	limit 7 to (article or article in press or books or chapter or "review")	11
9	limit 8 to last 20 years	11
10	limit 9 to embase	10

Estudios encontrados en Embase, usando filtro inicial, pero que no abordaban finalmente la pregunta de investigación:

- Cepeda, J. A., Solomon, S. S., Srikrishnan, A. K., Nandagopal, P., Balakrishnan, P., Kumar, M. S., ... & Mehta, S. H. (2016, May). Serum fibrosis markers for the diagnosis of liver disease among people with chronic hepatitis C in Chennai, India. In Open forum infectious diseases (Vol. 3, No. 3, p. ofw156). Oxford University Press.

- Stasi, C., & Milani, S. (2016). Non-invasive assessment of liver fibrosis: Between prediction/prevention of outcomes and cost-effectiveness. World journal of gastroenterology, 22(4), 1711.

- Shehab, H., Elattar, I., Elbaz, T., Mohey, M., & Esmat, G. (2014). CUFA algorithm: assessment of liver fibrosis using routine laboratory data. Journal of viral hepatitis, 21(12), 956-964.

- Zarski, J. P., Sturm, N., Guechot, J., Zafrani, E. S., Vaubourdolle, M., Thoret, S., ... & Bosson, J. L. (2013). Contribution of the ELFG test in algorithms of non-invasive markers towards the diagnosis of significant fibrosis in chronic hepatitis C. PloS one, 8(3), e59088.

- Crisan, D., Radu, C., Lupsor, M., Sparchez, Z., Grigorescu, M. D., & Grigorescu, M. (2012). Two or more synchronous combination of noninvasive tests to increase accuracy of liver fibrosis assesment in chronic hepatitis C; results from a cohort of 446 patients. Hepatitis monthly, 12(3), 177.

- Cobbold, J. F. L., Crossey, M. M. E., Colman, P., Goldin, R. D., Murphy, P. S., Patel, N., ... & Taylor-Robinson, S. D. (2010). Optimal combinations of ultrasound-based and serum markers of disease severity in patients with chronic hepatitis C. *Journal of viral hepatitis*, 17(8), 537-545.

- Koh, C., Heller, T., Haynes-Williams, V., Hara, K., Zhao, X., Feld, J. J., ... & Hoofnagle, J. H. (2013). Long-term outcome of chronic hepatitis C after sustained virological response to interferon-based therapy. *Alimentary pharmacology & therapeutics*, 37(9), 887-894.

- Chang, P. E., Lui, H. F., Chau, Y. P., Lim, K. H., Yap, W. M., Tan, C. K., & Chow, W. C. (2008). Prospective evaluation of transient elastography for the diagnosis of hepatic fibrosis in Asians: comparison with liver biopsy and aspartate transaminase platelet ratio index. *Alimentary pharmacology & therapeutics*, 28(1), 51-61.

- De Ledinghen, V., Barreiro, P., Foucher, J., Labarga, P., Castera, L., Vispo, M. E., ... & Merrouche, W. (2008). Liver fibrosis on account of chronic hepatitis C is more severe in HIV-positive than HIV-negative patients despite antiretroviral therapy. *Journal of viral hepatitis*, 15(6), 427-433.

- El-Raziky, M., Khairy, M., Fouad, A., Salama, A., Elsharkawy, A., & Tantawy, O. (2018). Effect of Direct-Acting Agents on Fibrosis Regression in Chronic Hepatitis C Virus Patients' Treatment Compared with Interferon-Containing Regimens. *Journal of Interferon & Cytokine Research*, 38(3), 129-136.

Estudio encontrado en Google, pero que finalmente no fue seleccionado:

- Castéra, L., Sebastiani, G., Le Bail, B., de Lédinhen, V., Couzigou, P., & Alberti, A. (2010). Prospective comparison of two algorithms combining non-invasive methods for staging liver fibrosis in chronic hepatitis C. *Journal of hepatology*, 52(2), 191-198.