Imaging features to predict clinical endpoints in chronic liver disease - ... https://forms.office.com/Pages/ResponsePage.aspx?id=\_oivH5ipW0y...

## Imaging features to predict clinical endpoints in chronic liver disease - a scoping review

Study data entry proforma

• • •

## N.B.: Please check that the study meets the inclusion criteria first!

If not, explain why in the final question, submit and email <u>m.chouhan@ucl.ac.uk</u> with the study details.

| 1. | Researcher initials: |
|----|----------------------|
|    | Enter your answer    |
|    |                      |
| _  |                      |
| 2. | DOI:                 |
|    | Enter your answer    |
|    |                      |
|    |                      |
| 3. | Author:              |
|    | (e.g. Smith et al.)  |
|    | Enter your answer    |

| Imaging features to p | redict clinical endpoints in chronic liver disease https://forms.office.com/Pages/ResponsePage.aspx?id=_oivH5ipW0y |
|-----------------------|--|
|                       |  |
|                       |  |
| 4.                    | Year:  |
|                       | (Format: YYYY)   |
|                       | The value must be a number   |
|                       |  |
|                       |  |
| 5.                    | Country:   |
|                       | Enter your answer  |
|                       |  |
|                       |  |
| 6.                    | Imaging modalities used:   |
|                       | US   |
|                       | СТ   |
|                       | ☐ MRI  |
|                       |  |
| 7                     | Study typo   |
| 7.                    | Study type (n.b. prognostic studies only - if not prognostic, enter "not prognostic" in question 35 and            |
|                       | submit blank form)   |
|                       | Retrospective  |
|                       | Prospective  |
|                       | Other  |
|                       |  |
|                       |  |
| 8.                    | Recruitment setting:   |
|                       | Outpatient   |
|                       | ☐ Inpatient  |
|                       | Patient registry   |
|                       |  |

| maging features to pre- | redict clinical endpoints in chronic liver disease https://forms.office.com/Pages/Responsel      | Page.aspx?id=_oivH5ipW0y |
|-------------------------|--|--------------------------|
|                         | Other  |                          |
|                         |  |                          |
| 9. P                    | Prognostic study phase:  |                          |
|                         | Phase la   |                          |
|                         | Phase Ib   |                          |
|                         | Phase IIa  |                          |
|                         | Phase IIb  |                          |
|                         | Phase III  |                          |
|                         | Other  |                          |
|                         |  |                          |
| 10. C                   | Overall sample size:   |                          |
|                         | The value must be a number   |                          |
|                         |  |                          |
| 11. N                   | Non-liver disease sub-cohort size:   |                          |
|                         | (i.e. healthy volunteers, non-liver disease patients, if no non-liver disease sub-cohort, j "0") | ust type                 |
|                         | The value must be a number   |                          |
|                         |  |                          |
| 12. N                   | Non-liver disease sub-cohort:  |                          |
|                         | No non-liver disease sub-cohort studied  |                          |
|                         | Healthy volunteers   |                          |
|                         | Non-liver disease patients   |                          |
|                         | Age-matched controls   |                          |
|                         |  |                          |

| Other  |  |  |
|--|--|--|
| 13. Liver disease sub-coh<br>(pooled across all liver dise | nort size:<br>ease aetiologies, if multiple) |  |
| The value must be a nu                                     | mber   |  |
| 14. Liver disease aetiolog                                 | jies studied:                                |  |
| ☐ Viral hepatitis  |  |  |
| Alcoholic liver disease                                    | e  |  |
| ☐ NASH   |  |  |
| ☐ NAFLD  |  |  |
| ☐ PSC  |  |  |
| ☐ PBC  |  |  |
| Autoimmune hepatit   | is   |  |
| Unspecified  |  |  |
| Other  |  |  |
|  |  |  |
| 15. Development sample                                     | e size:                                      |  |
|  | if not applicable, enter '0')                |  |
| The value must be a nu                                     | mber   |  |

16. Internal validation/test sample size:

(for phase Ib studies and above only - if not applicable, enter '0')

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|-------------------------|---|
|                         | The value must be a number  |
|                         | nterval validation/test sampling method:<br>if no interval validation/test sample, just select 'N/A')   |
| (                       | Random development/validation dataset split   |
| (                       | Re-sampling of the same data (e.g. bootstrap or cross-validation methods)   |
| (                       | ○ N/A   |
| (                       | Other   |
|                         |   |
|                         | External validation/test sample size:  for phase Ib studies and above only - if not applicable, enter '0')  |
|                         | The value must be a number  |
| 10.5                    | External validation (test cample cohort notes:  |
| (.                      | External validation/test sample cohort notes:<br>3 details - disease aetiology - site (e.g. single, multiple) - separation from development cohort<br>e.g. random, temporal, geographic); if no external validation/test sample, just enter 'N/A'), |
|                         | For example:<br>NAFLD - single site - geographic separation   |
|                         | Enter your answer   |
| L                       |   |
|                         | Clinical endpoints:   |
| (                       | include primary and secondary clinical endpoints)   |
| L<br>-                  | Mortality/Survival  |
| L                       | Acute decompensation  |

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|--|--------------|
| Hepatic encephalopathy   |              |
| Jaundice   |              |
| Intractable ascites  |              |
| ☐ Variceal bleed   |              |
| Development of HCC   |              |
| Deterioration in decompensation  |              |
| Transplant/Transplant free survival  |              |
| Other  |              |
|  |              |
| 21. Clinical endpoint sample size:  (please enter sample size for each endpoint, each on a new line, in the box below)  For example:  Mortality, n=25  Acute decompensation, n=30  Enter your answer |              |
| 22. Follow-up interval (for the development cohort):  (average/fixed, months)  The value must be a number  |              |
| <ul> <li>23. Follow-up interval data-type (for the development cohort):</li></ul>  |              |

| Other  |
|--|
| verage follow-up interval (+/- limit or range, for the development cohort):  nter '0' if follow-up interval fixed) |
| Enter your answer  |
| verage follow-up interval +/- limit data-type (for the development cohort):  Eferring to question 24)              |
| Standard Deviation   |
| Standard Error   |
| Inter-quartile range   |
| Range  |
| Confidence Interval  |
| N/A (fixed)  |
| Other  |
| ollow-up interval (for the test/validation cohort):  verage/fixed, months)   |
| The value must be a number   |
| ollow-up interval data-type (for the test/validation cohort):  Eferring to question 26)                            |
| ) Mean   |

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|--|---|
| Fixed  |   |
| Other  |   |
|  |   |
| 28. Average follow-up interval +/- limit (for the test/validation cohort):  (enter '0' if follow-up interval fixed)                  |   |
| The value must be a number   |   |
|  |   |
| 29. Average follow-up interval +/- limit data-type (for the test/validation cohort): (referring to question 28)                      |   |
| Standard Deviation   |   |
| Standard Error   |   |
| O Inter-quartile range   |   |
| Range  |   |
| Confidence Interval  |   |
| N/A (fixed)  |   |
| Other  |   |
|  |   |
| 30. Number of scanners used:  (if not stated, record 'not given')  |   |
| (i) not stated, record not given)  |   |
| Enter your answer  |   |
| 31. Number of participating institutions/hospitals/imaging centres:  |   |
| The value must be a number   |   |

|  | Imaging | features to predict | clinical endpoints in chronic liver dis | sease https:// | forms.office.com/I | Pages/Resp | onsePage.aspx?id | =_oivH5ipW0y |
|--|---------|---------------------|---|----------------|--------------------|------------|------------------|--------------|
|--|---------|---------------------|---|----------------|--------------------|------------|------------------|--------------|

| 32. Ana   | 32. Anatomical features evaluated 1:                       |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| (ther   | (thematic grouping)  |  |  |  |  |  |  |
|   | Splenic size (single dimension/volumetry)                  |  |  |  |  |  |  |
|   | Liver size (single dimension/volumetry)                    |  |  |  |  |  |  |
|   | Porto-systemic shunts (single dimension/volumetry)         |  |  |  |  |  |  |
|   | Portal vein (diameter)                                     |  |  |  |  |  |  |
|   | Splenic vein (diameter)                                    |  |  |  |  |  |  |
|   | Liver contour (qualitative/quantitative)                   |  |  |  |  |  |  |
|   | Liver radiomics/textural features                          |  |  |  |  |  |  |
|   | Spleen radiomics/textural features                         |  |  |  |  |  |  |
|   | Ascites (presence/volumetry)                               |  |  |  |  |  |  |
| Fat (visceral/subcutaneous adiposity)                         |  |  |  |  |  |  |  |
|   | Muscle (sarcopaenia)                                       |  |  |  |  |  |  |
|   | Other  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |
| 22 4  |  |  |  |  |  |  |  |
|   | tomical features evaluated 2:                              |  |  |  |  |  |  |
|   | (specific variables measured from themes given previously) |  |  |  |  |  |  |
| For example:<br>splenic size - craniocaudal length (mm)       |  |  |  |  |  |  |  |
| liver size - mid-clavicular line length (mm)                  |  |  |  |  |  |  |  |
|   | o-systemic shunt - azygous vein diameter (mm)              |  |  |  |  |  |  |
| porto-systemic shunt - presence of recanalised umbilical vein |  |  |  |  |  |  |  |
| En  | Enter your answer  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |

## 34. Anatomical features linked with clinical endpoints 1:

(thematic grouping)

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|-----------------------------|---|---|
|                             | Splenic size (single dimension/volumetry)   |   |
|                             | Liver size (single dimension/volumetry)   |   |
|                             | Porto-systemic shunts (single dimension/vol   | umetry)   |
|                             | Portal vein (diameter)  |   |
|                             | Splenic vein (diameter)   |   |
|                             | Liver contour (qualitative/quantitative)  |   |
|                             | Liver radiomics/textural features   |   |
|                             | Spleen radiomics/textural features  |   |
|                             | Ascites (presence/volumetry)  |   |
|                             | Fat (visceral/subcutaneous adiposity)   |   |
| i                           | Muscle (sarcopaenia)  |   |
|                             | Other   |   |
| (list t                     | tomical features linked with clinical e<br>theme, then feature and hifen to separate end<br>point on each line)   | •   |
| For e.<br>splen<br>sarco    | example:<br>nic size - spleen volume - acute decompensati<br>opaenia - psoas muscle area at L3 - hepatic ei<br>ral fat - L3 visceral fat area % - development | ncephalopathy   |
| Ent                         | ter your answer   |   |
| 36. Stat                    | istical analysis method:  |   |
|                             | Cox regression  |   |
|                             | Regression  |   |
| 1                           | t-tests   |   |

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|----------------------------|---|-----------|---|
|                            | Chi-squared tests                                 |           |   |
|                            | Wilcoxon rank sum                                 |           |   |
|                            | ANOVA   |           |   |
|                            | Correlation                                       |           |   |
|                            | ROC analysis                                      |           |   |
|                            | Other   |           |   |
|                            |   |           |   |
|                            |   |           |   |
| 37. Pro                    | ognostic model developed:                         |           |   |
| 0                          | Single variable                                   |           |   |
| 0                          | > 1 variable/composite model                      |           |   |
| 0                          | Other   |           |   |
|                            |   |           |   |
| 38 Pro                     | ognostic model presentation                       |           |   |
| 56.116                     | Full regression formula (coefficients + interce   | ant/hase  | eline hazard)                                       |
|                            | Partial regression formula (hazard/odds ratio,    |           |   |
|                            | Sum score   | , no mie  | этсерц разенне наzага)                              |
|                            |   |           |   |
|                            | Nomogram  |           |   |
|                            | Online tool                                       |           |   |
|                            | Not given   |           |   |
|                            | Other   |           |   |
|                            |   |           |   |
| 39. Pro                    | ognostic model usability                          |           |   |
|                            | Prognostic score/risk group assigned              |           |   |
|                            | Time-to-endpoint presented for risk group/so      | core      |   |
|                            |   |           |   |

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|--|---|
| Data driven threshold/cut-off value  |   |
| Instructions for clinical use given  |   |
| ☐ Not given  |   |
| Other  |   |
| 40. Additional notes (including why a stud<br>(please print as a PDF to save a copy of your co<br>button)  Enter your answer |   |
| Submit  Never give out your password. Report abuse   |   |

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