

# Přílohy

Příloha 1.

# CNSP

## Critical Appraisal Skills Programme

### CASP Checklist: For diagnostic test studies

<b>Reviewer Name:</b>	Marek Malich
<b>Paper Title:</b>	Identifikace meniskoidů a tlumících vlastností krční páteře pomocí MRI a TVS před a po aplikaci manipulační léčby
<b>Author:</b>	Mgr. Tereza Pígllová
<b>Web Link:</b>	<a href="https://ftvs.cuni.cz/FTVS-2169-version1-disertace_piglova.pdf">https://ftvs.cuni.cz/FTVS-2169-version1-disertace_piglova.pdf</a>
<b>Appraisal Date:</b>	8.5.2025

During critical appraisal, never make assumptions about what the researchers have done. If it is not possible to tell, use the “Can’t tell” response box. If you can’t tell, at best it means the researchers have not been explicit or transparent, but at worst it could mean the researchers have not undertaken a particular task or process. Once you’ve finished the critical appraisal, if there are a large number of “Can’t

tell” responses, consider whether the findings of the study are trustworthy and interpret the results with caution.

Section A: Are the results of the study valid?	
1. Did the study address a clearly formulated research question?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell Výzkum má jasně stanovené cíle, zaměřené téma meniskoidů.
<b>CONSIDER:</b> <i>A question should include information about</i> <ul style="list-style-type: none"> <li>• <i>the population</i></li> <li>• <i>the test</i></li> <li>• <i>the setting</i></li> <li>• <i>the outcomes</i></li> </ul>	
2. Was there a comparison with an appropriate reference standard?	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Can't Tell Jedná se o první studii tohoto typu, proto neexistuje porovnání. Ovšem použité metody byly využity správně a podle dostupných postupů.
<b>CONSIDER:</b> <ul style="list-style-type: none"> <li>• <i>Is this reference test(s) the best available indicator in the circumstances</i></li> </ul>	
3. Did all patients get the diagnostic test and reference standard?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell Vyšetření kloubní blokády není objektivní vyšetření. Ovšem se zdá, že vyšetření prováděla stejná osoba a tím pádem jsou výsledky hodnoceny stejným způsobem.
<b>CONSIDER:</b> <ul style="list-style-type: none"> <li>• <i>were both received regardless of the results of the test of interest</i></li> <li>• <i>Check the 2x2 table (verification bias)</i></li> </ul>	
4. Could the results of the test have been influenced by the results of the reference standard?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell Zaslepení studie nebylo provede. V nynější době neexistuje možnost zaslepení u této terapie a vyšetření.

<p><i>CONSIDER:</i></p> <ul style="list-style-type: none"> <li>• <i>was there blinding</i></li> <li>• <i>were the tests performed independently</i></li> <li>• <i>could there have been review bias</i></li> </ul>	
5. Is the disease status of the tested population clearly described?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Can't Tell <p>Informace jsou dostatečně popsány.</p>
<p><i>CONSIDER:</i></p> <ul style="list-style-type: none"> <li>• <i>presenting symptoms</i></li> <li>• <i>disease stage of severity</i></li> <li>• <i>co-morbidity</i></li> <li>• <i>differential diagnoses (spectrum bias)</i></li> </ul>	
6. Were the methods for performing the test described in sufficient detail?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell <p>Postup je kvalitně popsán.</p>
<p><i>CONSIDER:</i></p> <ul style="list-style-type: none"> <li>• <i>Was a protocol followed</i></li> </ul>	
<p><b>Section B: What are the results?</b></p>	
7. What are the results?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Can't Tell <p>Neexistuje v dostupné literatuře dostatek referenčních hodnot pro porovnání zjištěných výsledků. Citlivost ani specifita není uvedena.</p>
<p><i>CONSIDER:</i></p> <ul style="list-style-type: none"> <li>• <i>are the sensitivity and specificity and/or likelihood ratios presented</i></li> <li>• <i>are the results presented in such a way that we can work them out</i></li> </ul>	
8. How sure are we about the results? Consequences and cost of alternatives performed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Can't Tell <p>Studie je kvalitně provedena, chybí uvedené veličiny jako intervaly spolehlivosti, p-hodnoty. Problém je v absenci dat ve vědě.</p>
<p><i>CONSIDER:</i></p> <ul style="list-style-type: none"> <li>• <i>could they have occurred by chance</i></li> <li>• <i>are there confidence limits</i></li> <li>• <i>what are they</i></li> </ul>	

Section C: Will the results help locally?	
9. Can the results be applied to your patients/the population of interest?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Can't Tell  <i>Zkoumaný vzorek je příliš malý a výsledky nejsou jednoznačné. Proto se prozatím nedají v praxi použít.</i>
<b>CONSIDER:</b> <ul style="list-style-type: none"> <li>Do you think your patients/population are so different from those in the study that the results cannot be applied, such as age, sex, ethnicity and spectrum bias.</li> </ul>	
10. Can the test be applied to your patient or population of interest?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Can't Tell  <i>Samotný proces vyšetření a testování není v této podobě uplatnitelný v běžné populaci ani na pracovišti. Proces je doprovázen velkým množstvím expertů.</i>
<b>CONSIDER:</b> <ul style="list-style-type: none"> <li>resources and opportunity costs</li> <li>level and availability of expertise required to interpret the tests</li> <li>current practice and availability of services</li> </ul>	
11. Were all outcomes important to the individual or population considered?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell  <i>Výsledek prozatím nepřináší dostatek informací pro zlepšení výsledků terapie pro pacienta. Přináší veliký přínos pro teoretické koncepty vzniku kloubní blokády.</i>
<b>CONSIDER:</b> <ul style="list-style-type: none"> <li>will the knowledge of the test result improve patient wellbeing</li> <li>will the knowledge of the test result lead to a change in patient management</li> </ul>	
12. What would be the impact of using this test on your patients/population?  <b>Výsledkem by byla lepší objektivizace manipulační léčby a její právoplatné místo v léčebné sféře.</b>	

<b>APPRAISAL SUMMARY:</b> List key points from your critical appraisal that need to be considered when assessing the validity of the results and their usefulness in decision-making.		
Positive/Methodologically sound	Negative/Relatively poor methodology	Unknowns

<ul style="list-style-type: none"> <li>- Jasně definované cíle studie</li> <li>- Vhodně zvolené metody vyšetření</li> <li>- Etické aspekty uvedeny</li> <li>- Podrobný popis metodiky a výběru léčby</li> </ul>	<ul style="list-style-type: none"> <li>- Nedostatečné použití statistických hodnot a testů</li> <li>- Malý vzorek subjektů</li> <li>- Není kontrolní skupina</li> </ul>	<ul style="list-style-type: none"> <li>- Celkový vliv uskřínutí meniskoidů pro holistické pochopení kloubní blokády.</li> </ul>
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**Referencing recommendation:**

CASP recommends using the Harvard style referencing, which is an author/date method. Sources are cited within the body of your assignment by giving the name of the author(s) followed by the date of publication. All other details about the publication are given in the list of references or bibliography at the end.

Example:

*Critical Appraisal Skills Programme (2024). CASP (insert name of checklist i.e. Diagnostic test Checklist.) [online] Available at: insert URL. Accessed: insert date accessed.*

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Příloha 2.

# CNSP

## Critical Appraisal Skills Programme

### CASP Checklist: For Cohort Studies

<b>Reviewer Name:</b>	Marek Malich
<b>Paper Title:</b>	Zygapophyseal joint adhesions after induced hypomobility
<b>Author:</b>	Cramer et al. (2010)
<b>Web Link:</b>	<a href="https://www.jmptonline.org/article/S0161-4754(10)00188-0/fulltext">https://www.jmptonline.org/article/S0161-4754(10)00188-0/fulltext</a>
<b>Appraisal Date:</b>	10.5.2025

During critical appraisal, never make assumptions about what the researchers have done. If it is not possible to tell, use the “Can’t tell” response box. If you can’t tell, at best it means the researchers have not been explicit or transparent, but at worst it could mean the researchers have not undertaken a particular task or process. Once you’ve finished the critical appraisal, if there are a large number of “Can’t

tell” responses, consider whether the findings of the study are trustworthy and interpret the results with caution.

Section A: Are the results valid?	
1. Did the study address a clearly focused issue?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell  Cílem bylo zjistit, jestli indukovaná hypomobilita způsobuje vznik adhezí ve facetových kloubech.
<b>CONSIDER:</b> <i>A question can be 'focused' in terms of</i> <ul style="list-style-type: none"> <li>• the population studied</li> <li>• the risk factors studied</li> <li>• is it clear whether the study tried to detect a beneficial or harmful effect</li> <li>• the outcomes considered</li> </ul>	
2. Was the cohort recruited in an acceptable way?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell  Potkani byli rozdělení do skupin podle doby imobilizace a byli porovnání s kontrolní skupinou.
<b>CONSIDER:</b> <ul style="list-style-type: none"> <li>• Look for selection bias which might compromise the generalisability of the findings:</li> <li>• was the cohort representative of a defined population</li> <li>• was there something special about the cohort</li> <li>• was everybody included who should have been</li> </ul>	
3. Was the exposure accurately measured to minimise bias?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell  Imobilizace byla chirurgicky indukována a metoda byla přesně popsána.
<b>CONSIDER:</b> <i>Look for measurement or classification bias:</i> <ul style="list-style-type: none"> <li>• did they use subjective or objective measurements</li> <li>• do the measurements truly reflect what you want them to (have they been validated)</li> <li>• were all the subjects classified into exposure groups using the same procedure</li> </ul>	
4. Was the outcome accurately measured to minimise bias?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell  Výsledky byly hodnoceny dvěma zaslepenými hodnotiteli a používali stejný hodnotící systém.
<b>CONSIDER:</b> <i>Look for measurement or classification bias:</i>	

<ul style="list-style-type: none"> <li>• <i>did they use subjective or objective measurements</i></li> <li>• <i>do the measurements truly reflect what you want them to (have they been validated)</i></li> <li>• <i>has a reliable system been established for detecting all the cases (for measuring disease occurrence)</i></li> <li>• <i>were the measurement methods similar in the different groups</i></li> <li>• <i>were the subjects and/or the outcome assessor blinded to exposure (does this matter)</i></li> </ul>	
5. (a) Have the authors identified all important confounding factors?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Can't Tell  <b>Studie zmiňuje základní výzkumnou otázku, jelikož jde o zvířecí studii, kontrola možných biologických rozdílů je značně omezená.</b>
<b>CONSIDER:</b> <ul style="list-style-type: none"> <li>• <i>list the ones you think might be important, and ones the author missed</i></li> </ul>	
b) Have they taken account of the confounding factors in the design and/or analysis?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell  <b>Ano, faktory byly statisticky hodnoceny pomocí kappa koeficientu – 0,86 – téměř perfektní shoda mezi hodnotiteli.</b>
<b>CONSIDER:</b> <ul style="list-style-type: none"> <li>• <i>look for restriction in design, and techniques e.g. modelling, stratified-, regression-, or sensitivity analysis to correct, control or adjust for confounding factors</i></li> </ul>	
6. a) Was the follow up of subjects complete enough?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell  <b>Jelikož se jednalo o zvířecí studii, žádný subjekt nebyl vyřazen.</b>
<b>CONSIDER:</b> <ul style="list-style-type: none"> <li>• <i>the persons that are lost to follow-up may have different outcomes than those available for assessment</i></li> <li>• <i>in an open or dynamic cohort, was there anything special about the outcome of the people leaving, or the exposure of the people entering the cohort</i></li> </ul>	
b) Was the follow up of subjects long enough?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell  <b>Časové rozmezí bylo mezi 4–16 týdny. Dostatečný časový odstup pro změny mezi skupinami.</b>
<b>CONSIDER:</b> <ul style="list-style-type: none"> <li>• <i>the good or bad effects should have had long enough to reveal themselves</i></li> </ul>	
<b>Section B: What are the results?</b>	
7. What are the results of this study?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell

	Adheze ve facetových kloubech se vyskytovala častěji a s větší intenzitou v závislosti na době indukované imobilizace.
<p><b>CONSIDER:</b></p> <ul style="list-style-type: none"> <li>• <i>what are the bottom line results</i></li> <li>• <i>have they reported the rate or the proportion between the exposed/unexposed, the ratio/rate difference</i></li> <li>• <i>how strong is the association between exposure and outcome (RR)</i></li> <li>• <i>what is the absolute risk reduction (ARR)</i></li> </ul>	
8. How precise are the results?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Can't Tell  <b>Výsledky byly podpořeny statistickou analýzou a výsledky byly statisticky významné. (Kruskal-Wallisův test, Dunns test – one-way Anova)</b>
<p><b>CONSIDER:</b></p> <ul style="list-style-type: none"> <li>• <i>look for the range of the confidence intervals, if given</i></li> </ul>	
9. Do you believe the results?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Can't Tell  <b>Studie je velice kvalitně propracována. Měření byla provedena na zvířecích modelech, je tedy nutné k výsledkům i tak přistupovat.</b>
<p><b>CONSIDER:</b></p> <ul style="list-style-type: none"> <li>• <i>big effect is hard to ignore</i></li> <li>• <i>can it be due to bias, chance or confounding</i></li> <li>• <i>are the design and methods of this study sufficiently flawed to make the results unreliable</i></li> <li>• <i>Bradford Hills criteria (e.g. time sequence, dose-response gradient, biological plausibility, consistency)</i></li> </ul>	
<b>Section C: Will the results help locally?</b>	
10. Can the results be applied to the local population?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Can't Tell  <b>Studie slouží jako teoretický základ pro možné biologické mechanismy – byl použit zvířecí model.</b>
<p><b>CONSIDER:</b></p> <ul style="list-style-type: none"> <li>• <i>Is a cohort study the appropriate method to answer this question</i></li> <li>• <i>If the subjects covered in this study could be sufficiently different from your population to cause concern</i></li> <li>• <i>If your local setting is likely to differ much from that of the study</i></li> <li>• <i>If you can quantify the local benefits and harms</i></li> </ul>	
11. Do the results of this study fit with other available evidence?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Can't Tell  <b>Studie se shoduje ve vzniku adhezí s omezením pohyblivosti. Nutná jsou další klinická data.</b>

12. What are the implications of this study for practice?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Can't Tell  Studie uvádí, že spinální manipulace může být technikou uvolnění zmíněných adhezí. Studie, které tento efekt potvrdí ovšem doposud neexistují.
<b>CONSIDER:</b> <ul style="list-style-type: none"> <li>• <i>one observational study rarely provides sufficiently robust evidence to recommend changes to clinical practice or within health policy decision making</i></li> <li>• <i>for certain questions, observational studies provide the only evidence</i></li> <li>• <i>recommendations from observational studies are always stronger when supported by other evidence</i></li> </ul>	

<b>APPRAISAL SUMMARY:</b> List key points from your critical appraisal that need to be considered when assessing the validity of the results and their usefulness in decision-making.		
Positive/Methodologically sound	Negative/Relatively poor methodology	Unknowns
<ul style="list-style-type: none"> <li>- Kontrolovaný design</li> <li>- Objektivní měření</li> <li>- Zaslepení měření</li> <li>- Jasná metodologie</li> </ul>	<ul style="list-style-type: none"> <li>- Téměř nemožná aplikace na lidskou populaci</li> <li>- Experiment na zvířatech</li> </ul>	<ul style="list-style-type: none"> <li>- Dochází ke stejnému jevu i u lidské populace?</li> </ul>

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Example:

*Critical Appraisal Skills Programme (2024). CASP (insert name of checklist i.e. qualitative studies Checklist.) [online] Available at: insert URL. Accessed: insert date accessed.*

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