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# Evidence Search Service Results of your search request

## Physiotherapy video consultations (COVID-19)

**ID of request:** 23312  
**Date of request:** 19th May, 2020  
**Date of completion:** 28th May, 2020

If you would like to request any articles or any further help, please contact:  Pam Collins at [Pamela.collins@nhs.net](mailto:Pamela.collins@nhs.net)

Please acknowledge this work in any resulting paper or presentation as: Evidence search: Physiotherapy video consultations (COVID-19). Pam Collins. (28th May, 2020). WOLVERHAMPTON, UK: The Royal Wolverhampton NHS Trust Library and Knowledge Service.

**Sources searched**  
AMED (1)  
CINAHL (9)  
EMBASE (6)  
MEDLINE (0)  
PubMed (6)

**Date range used** (5 years, 10 years): 2015 onwards.   
**Limits used** (gender, article/study type, etc.): English Language, Human, Adult, Systematic Reviews, Randomised Control Trials   
**Search terms and notes** (full search strategy for database searches below):

Adult patients   
Pain

The following relevant controlled vocabulary (MeSH Headings) and natural language terms where selected and combined to conduct the search:

* Osteoarthritis
* Back pain
* Spinal pain
* Shoulder pain
* Knee pain
* Joint pain
* Muscle pain
* Muscle strain
* Tendonitis
* Bursitis
* Musculoskeletal pain
* Video consultation
* One consult
* Accurx
* Physiotherapy
* Physical therapy
* Usual care
* Face to face
* 'Hands on' assessment
* VAS
* Satisfaction
* Safety
* Adverse events

Data sources searched include Cinahl, AMED, Embase, Medline PubMed on the HDAS platform. The Coronavirus Research Database on the ProQuest Platform was also searched using the same headings. Further searches were then completed on Cochrane, PEDRO, Trip-Database, NHS Evidence and Google Scholar.

These items were reviewed for relevance. The results saved focused on adults and English language.

For more information about the resources please go to: <https://base-library.nhs.uk/rwtlks/>.

## Summary of Results

The primary search terms used within the Cinahl database.  These terms were then re-run in the remaining databases.

There appears to be very little high quality articles published at present on physiotherapy and video consultation for COVID-19 patients at present prior to 2020.

After the initial search, the article by Gilbert “Rapid implementation of virtual clinics due to COVID-19: report and early evaluation of a quality improvement initiative” was published. The original search results were amended, this identified a couple of other publications with a generic theme of video consultation, or in the field of orthopaedics and general practice that may be relevant.

One RCT was included as it appeared in all search results, but it outside of the time frame of 2015 - Wallace “Virtual outreach: a randomised controlled trial and economic evaluation of joint teleconferenced medical consultations”.

Articles specific to physiotherapy include:

Furlan - Evaluation of an innovative tele-education intervention in chronic pain management for primary care clinicians practicing in underserved areas.

Grona - Use of videoconferencing for physical therapy in people with musculoskeletal conditions: a systematic review.

Herbert - Telehealth versus in-person acceptance and commitment therapy for chronic pain (RCT)

Hinman - "Sounds a bit crazy, but it was almost more personal:" a qualitative study of patient and clinician experiences of physical therapist-prescribed exercise for knee osteoarthritis via Skype.

Hwang - Home-based telerehabilitation is not inferior to a centre-based program in patients with chronic heart failure: a randomised trial.

Levy - Effects of physical therapy delivery via home video telerehabilitation on functional and health related concerns. (Retrospective Study).

Peterson - Telerehabilitation booster sessions and remote patient monitoring in the management of chronic low back pain: A case series.

Peterson - Use of modified treatment-based classification system for subgrouping patients with low back pain: agreement between telerehabilitation and face-to-face assessments.

Wang - Digital disruptive technology for rehabilitation following elective surgery for low ack pain, knee and hip osteoarthritis: a systematic review and meta-analysis. (Systematic review)

Other related articles:

Atherton - The potential of alternatives to face-to-face consultation in general practice, and the impact on different patient groups: a mixed-methods case study.

Bini - Clinical outcomes of remote asynchronous telerehabilitation are equivalent to traditional therapy following total knee arthroplasty: a randomized control study.

Buvik - Patient reported outcomes with remote orthopaedic consultation by telemedicine: a randomised controlled trial.

Doiron-Cadrin - Feasibility and preliminary effects of tele-prehabilitation programme and an in-person prehabilitation program compared to usual care for total hip or knee arthroplasty candidates: a pilot randomized controlled trial.

Eriksson - Patients experiences of telerehabilitation at home after shoulder joint replacement. (Qualitative study)

GonzalezRuiz - One year after e-health: attention through videoconference in the postoperative of patients intervened for total knee prosthesis (TKP) or hip (THP) (Conference Abstract)

Greenhalgh - Virtual online consultation: advantages and limitations (VOCAL) study.

Khan - Telerehabilitation for persons with multiple sclerosis. (Cochrane Review)

Mozer - Identifying perceived barriers to videoconferencing by rehabilitation medicine providers.

Pastora-Bernal - Effectiveness of telerehabilitation programme following surgery in shoulder impingement syndrome (SIS): study protocol for a randomized controlled non-inferiority trial.

Shukla - Role of telerehabilitation in patients following total knee arthroplasty: evidence from systematic literature review.

Shaw - Advantages and limitations of virtual online consultations in a NHS acute trust: the VOCAL mixed-methods study. (Extensive Review)

Thiyagarajan - Exploring patients' and clinicians' experiences of video consultations in primary care: a systematic scoping review.

Further, articles relating to other areas such as diabetes, psychiatry and paediatrics were also identified, but excluded for the search results.

## Contents

[A. Original Research](#Content5)

1. [Exploring patients' and clinicians' experiences of video consultations in primary care: a systematic scoping review.](#Research659346)
2. [Feasibility and preliminary effects of a tele-prehabilitation program and an in-person prehablitation program compared to usual care for total hip or knee arthroplasty candidates: a pilot randomized controlled trial](#Research659344)
3. [Rapid implementation of virtual clinics due to COVID-19: report and early evaluation of a quality improvement initiative.](#Research658991)
4. [Evaluation of an innovative tele-education intervention in chronic pain management for primary care clinicians practicing in underserved areas.](#Research653204)
5. [One year after e-health: attention through videoconference in the postoperative of patients intervened for total knee prosthesis (TKP) or HIP (THP)](#Research659345)
6. [Patient reported outcomes with remote orthopaedic consultations by telemedicine: A randomised controlled trial.](#Research659339)
7. [Use of a modified treatment-based classification system for subgrouping patients with low back pain: Agreement between telerehabilitation and face-to-face assessments](#Research659335)
8. [Advantages and limitations of virtual online consultations in a NHS acute trust: the VOCAL mixed-methods study.](#Research658983)
9. [Digital disruptive technology for rehabilitation following elective surgery for low back pain, knee and hip osteoarthritis: A systematic review and meta-analysis](#Research659336)
10. [Telerehabilitation booster sessions and remote patient monitoring in the management of chronic low back pain: A case series.](#Research653205)
11. [The potential of alternatives to face-to-face consultation in general practice, and the impact on different patient groups: a mixed-methods case study.](#Research658987)
12. [Use of videoconferencing for physical therapy in people with musculoskeletal conditions: A systematic review.](#Research659340)
13. ["Sounds a Bit Crazy, But It Was Almost More Personal:" A Qualitative Study of Patient and Clinician Experiences of Physical Therapist-Prescribed Exercise For Knee Osteoarthritis Via Skype.](#Research653210)
14. [Clinical outcomes of remote asynchronous telerehabilitation are equivalent to traditional therapy following total knee arthroplasty: A randomized control study.](#Research659342)
15. [Effectiveness of telerehabilitation programme following surgery in shoulder impingement syndrome (SIS): Study protocol for a randomized controlled non-inferiority trial](#Research659337)
16. [Home-based telerehabilitation is not inferior to a centre-based program in patients with chronic heart failure: a randomised trial.](#Research659341)
17. [Role of telerehabilitation in patients following total knee arthroplasty: evidence from a systematic literature review and meta-analysis.](#Research653206)
18. [Telehealth Versus In-Person Acceptance and Commitment Therapy for Chronic Pain: A Randomized Noninferiority Trial.](#Research653208)
19. [Virtual online consultation: advantages and limitations (VOCAL) study.](#Research658984)
20. [Effects of physical therapy delivery via home video telerehabilitation on functional and health-related quality of life outcomes.](#Research659343)
21. [Identifying perceived barriers to videoconferencing by rehabilitation medicine providers](#Research653213)
22. [Telerehabilitation for persons with multiple sclerosis.](#Research653209)
23. [Role of telerehabilitation in patients followin g total knee arthrop lasty: evidence from systematic literature review](#Research659338)
24. [Patients' experiences of telerehabilitation at home after shoulder joint replacement.](#Research653211)
25. [Virtual outreach: a randomised controlled trial and economic evaluation of joint teleconferenced medical consultations.](#Research658996)

### [B. Search History](#SearchHistory)

## A. Original Research

1. **Exploring patients' and clinicians' experiences of video consultations in primary care: a systematic scoping review.**  
   Thiyagarajan A. BJGP Open 2020;4(1):No page numbers.

Video consultation (VC) is an emerging consultation mode in general practice. The challenges and benefits of implementing it are not necessarily realised until it is in use, and being experienced by patients and clinicians. To date, there has been no review of the evidence about how patients and clinicians experience VC in general practice. The study aimed to explore both patients' and clinicians' experiences of VCs in primary care. A systematic scoping review was carried out of empirical studies. All major databases were searched for empirical studies of any design, published from 1 January 2010 to 11 October 2018 in the English language. Studies were included where synchronous VCs occurred between a patient and a clinician in a primary care setting. Outcomes of interest related to experience of use. The quality of included studies were assessed. Findings were analysed using narrative synthesis. Seven studies were included in the review. Patients reported being satisfied with VC, describing reduced waiting times and travel costs as a benefit. For patients and clinicians, VC was not deemed appropriate for all presentations and all situations, and a face-to-face consultation was seen as preferable where this was possible. The findings of this scoping review show that primary care patients and clinicians report both positive and negative experiences when using VCs, and these experiences are, to a certain extent, context dependent. VC is potentially more convenient for patients, but is not considered superior to a face-to-face consultation. Accounts of experience are useful in the planning and implementation of any VC service.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=0a529614d24b334def3215e2c2f653a6)

1. **Feasibility and preliminary effects of a tele-prehabilitation program and an in-person prehablitation program compared to usual care for total hip or knee arthroplasty candidates: a pilot randomized controlled trial**  
   Doiron-Cadrin P. Disability and rehabilitation 2020;42(7):989-998.

Purpose: Prolonged wait times for total hip and knee arthroplasty have deleterious effects on functional status for the awaiting patients. Telerehabilitation interventions can optimize the delivery of perioperative care. This pilot single-blind randomized controlled trial evaluates the feasibility and the potential impact on pain and disability of a telerehabilitation prehabilitation program, compared to in-person prehabilitation or usual care.Material and methods: Thirty-four patients awaiting a total hip or knee arthroplasty were randomly assigned to (1) an in-person 12-week prehabilitation program, (2) a tele-prehabilitation program or (3) usual care. Outcomes were feasibility, patients' acceptance and compliance to the program, the LEFS, the WOMAC, SF-36, the Self-Pace Walk, the Stair Test, the Timed Up and Go, and a Global Rating of Change scale. Outcomes were collected at baseline and after 12weeks. <br/>Result(s): Participants reported excellent satisfaction toward tele-prehabilitation. Compliance with the programs was high. No significant differences between groups were found for self-reported outcomes after the prehabilitation program (p&gt;=0.05). <br/>Conclusion(s): This pilot study suggests that tele-prehabilitation can be feasible using commercially available mobile technologies with patients awaiting total hip or knee arthroplasty, and can generate good satisfaction with this population. Further evaluation is warranted through a formal fully powered randomized controlled trial.Trial registration: ClinicalTrials.gov #NCT02636751Implications for RehabilitationProlonged wait times have deleterious effects on patients awaiting a total hip or knee arthroplasty.Prehabilitation interventions can optimize the delivery of perioperative care, but accessibility to such interventions can be limited by geographic situation, lack of transportation and financial issues.Using video conferencing mobile technologies can help overcome those obstacles.Tele-prehabilitation using mobile technology appears safe, feasible and generates good satisfaction with subjects awaiting a total hip or knee arthroplasty.

1. **Rapid implementation of virtual clinics due to COVID-19: report and early evaluation of a quality improvement initiative.**  
   Gilbert BMJ Open Quality 2020;9(2):e000985.

The COVID-19 outbreak has placed the National Health Service under significant strain. Social distancing measures were introduced in the UK in March 2020 and virtual consultations (via telephone or video call) were identified as a potential alternative to face-to-face consultations at this time. The Royal National Orthopaedic Hospital (RNOH) sees on average 11 200 face-to-face consultations a month. On average 7% of these are delivered virtually via telephone. In response to the COVID-19 crisis, the RNOH set a target of reducing face-to-face consultations to 20% of all outpatient attendances. This report outlines a quality improvement initiative to rapidly implement virtual consultations at the RNOH.

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1. **Evaluation of an innovative tele-education intervention in chronic pain management for primary care clinicians practicing in underserved areas.**  
   Furlan Andrea D. Journal of Telemedicine and Telecare 2019;25(8):484-492.

Inadequate knowledge and training of healthcare providers are obstacles to effective chronic pain management. ECHO (extension for community healthcare outcomes) uses case-based learning and videoconferencing to connect specialists with providers in underserved areas. ECHO aims to increase capacity in managing complex cases in areas with poor access to specialists. A pre-post study was conducted to evaluate the impact of ECHO on healthcare providers' self-efficacy, knowledge and satisfaction. Type of profession, presenting a case, and number of sessions attended were examined as potential factors that may influence the outcomes. From June 2014 to March 2017, 296 primary care healthcare providers attended ECHO, 264 were eligible for the study, 170 (64%) completed the pre-ECHO questionnaire and 119 completed post-ECHO questionnaires. Participants were physicians (34%), nurse practitioners (21%), pharmacists (13%) and allied health professionals (32%). Participants attended a mean of 15 +/- 9.19 sessions. There was a significant increase in self-efficacy (p < 0.0001) and knowledge (p < 0.0001). Self-efficacy improvement was significantly higher among physicians, physician assistants and nurse practitioners than the non-prescribers group (p = 0.03). On average, 96% of participants were satisfied with ECHO. Satisfaction was higher among those who presented cases and attended more sessions. This study shows that ECHO improved providers' self-efficacy and knowledge. We evaluated outcomes from a multidisciplinary group of providers practicing in Ontario. This diversity supports the generalisability of our findings. Therefore, we suggest that this project may be used as a template for creating other educational programs on other medical topics.

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1. **One year after e-health: attention through videoconference in the postoperative of patients intervened for total knee prosthesis (TKP) or HIP (THP)**  
   Gonzalez Ruiz C. International Journal of Clinical Practice 2019;73:No page numbers.

A year ago, our Hospital At Home service (HAH) presented a pilot test in which a group of TKP/THP postoperative patients was treated at their home by videoconferencing, which demonstrated the benefits of good use of video calls. A year later, we collected new data about the evolution of these groups. To implement and evaluate a care system by videoconferencing in postoperated TKP/THP patients admitted to HAH, to follow-up the evolution of these patients during a year post-discharge of HAH and to compare this modality of attention with traditional face-to- face visit. From May to October 2017, 42 patients voluntarily accepted to attend videoconferencing (VCG). They were provided videophone and healing material. Comparison with a control group (CG) of 42 patients who attended face-to- face visit was carried out. Statistical analysis was performed using PSPP v.0.10.4. Equilateral sociodemographic data: days in HAH: 8.62 (VCG) /10.31 (CG); 1,933 fewer days (TKP) and 0.817 fewer days (THP) in VCG. One hundred and forty-five face-to- face visits were saved. No readmissions or consultations to ER before 30 days in VCG, 1 re-entry and 5 consultations to ER in CG were observed. One consultation to ER before one year of discharge in VCG (surgical wound evaluation) and 3 in CG (1 surgical wound evaluation, 2 pain) were found. A survey reflected high degree of satisfaction. Care through videoconference in patients undergoing TKP/THP is safe and effective. It does not increase late complications. It allows good time management, saving on trips and more flexible visits. Patients and nurses show a high degree of satisfaction.

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1. **Patient reported outcomes with remote orthopaedic consultations by telemedicine: A randomised controlled trial.**  
   Buvik Journal of Telemedicine & Telecare 2019;25(8):451-459.

Decentralised services through outreach clinics or modern technology reduce patient travel time and cost to society. Telemedicine consultation through videoconference is one such modality. Here, we compared patient-reported health outcomes and satisfaction between video-assisted remote and standard face-to-face orthopaedic consultations. This randomised controlled trial included two parallel groups: (1) patients receiving video-assisted remote consultation at a regional medical centre (RMC); and (2) patients receiving standard consultation at the orthopaedic outpatient clinic of the University Hospital of North Norway (UNN). This study included patients referred to or scheduled for a consultation at the orthopaedic outpatient clinic. After each consultation, patient satisfaction was determined using patient-completed questionnaires containing questions on patient-reported health (three-level European quality of life five-dimension index (EQ-5D-3L)/European quality of life visual analogue scale (EQ-VAS)) and questions from a validated OutPatient Experiences Questionnaire (OPEQ). This study included 389 patients, of which 199 received remote consultation and 190 received standard consultation (total of 559 consultations). In all, 99% RMC-randomised patients and 99% UNN-randomised patients evaluated the consultation as very satisfactory or satisfactory. Moreover, 86% RMC-randomised patients preferred video-assisted consultation as the next consultation. No difference was observed in patient-reported health after 12 months between the two groups. EQ-5D index scores were 0.77 and 0.75 for RMC- and UNN-randomised patients, respectively (p = 0.42).Discussion: We did not observe any difference in patient-reported satisfaction and health (EQ-5D/EQ-VAS) between video-assisted and standard consultations, suggesting that video-assisted remote consultation can be safely offered to some orthopaedic patients. Moreover, a significantly high proportion of patients selected video-assisted remote consultation as their next consultation, thus strengthening the findings of this study. However, economic aspects should be assessed before widely recommending video-assisted consultation.

1. **Use of a modified treatment-based classification system for subgrouping patients with low back pain: Agreement between telerehabilitation and face-to-face assessments**  
   Peterson S. Physiotherapy Theory and Practice 2019;35(11):1078-1086.

Objective of the study was to examine the agreement between telerehabilitation and face-to-face assessments of patients with acute and subacute low back pain (LBP) using a modified treatment-based classification (TBC) system. A secondary aim was to evaluate patient satisfaction with the telerehabilitation assessment. Patients with LBP of less than 90 days' duration underwent both telerehabilitation and face-to-face assessments. After physical examination, patients were classified into one of three intervention groups (mobilization/manipulation, specific exercise, and stabilization). The assessment order and clinicians were randomized, and the clinicians were blinded to each other's classification decision. Forty-seven patients participated (mean [SD] age, 48.6 [15.0] years; 70% female). The overall rate of percentage agreement was 68.1% (kappa = 0.52; 95% confidence interval, 0.32-0.72). There was no difference in classification distributions between assessments (chi2 = 2.14, p = 0.54). The percentage agreement was 48.9%-59.6% for the modified TBC algorithm variables except for straight leg raise greater than 91degree, which was markedly lower at 35.1%. This was the only variable that was significantly different between the telerehabilitation and face-to-face scenarios. The overall satisfaction with the telerehabilitation assessment was good. The results suggest that a telerehabilitation assessment using the modified TBC system may be able to direct treatment of patients with acute and subacute LBP. However, challenges still remain in applying this approach to clinical practice.

1. **Advantages and limitations of virtual online consultations in a NHS acute trust: the VOCAL mixed-methods study.**  
   Shaw Health Services and Delivery Research 2018;6(21):1-162.

This review concludes athat virtual consultations appear to be safe, effective and convenient for patients who are preselected by their clinicians as ‘suitable’, but such patients represent a small fraction of clinic workloads. There are complex challenges to embedding virtual consultation services within routine practice in the NHS. Roll-out (across the organisation) and scale-up (to other organisations) are likely to require considerable support.

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1. **Digital disruptive technology for rehabilitation following elective surgery for low back pain, knee and hip osteoarthritis: A systematic review and meta-analysis**  
   Wang X. Arthritis and Rheumatology 2018;70:431-432.

The global uptake of digital health technologies in rehabilitation is increasing, but their effectiveness warrants further investigation. We aim to evaluate the effects of digital solutions used in musculoskeletal rehabilitation for people who underwent orthopaedic surgeries. Six databases were searched from the earliest records to October 2017. Eligible studies were randomised controlled trials (RCT) that investigated the effectiveness of disruptive digital technology-based intervention, solo or in combination with other interventions, compared with a control group for people who underwent elective total knee/hip replacement (TKR/THR) or lumbar spinal surgeries. Two researchers independently reviewed the studies as per the Cochrane methodology for the systematic literature review. Study quality was assessed using the Physiotherapy Evidence Database (PEDro) scale (0-10). Trials deemed clinically homogeneous were grouped in meta-analyses. Meta-analyses were performed using random-effects model, and results expressed as mean differences (MD), or standardised MDs (SMD) with 95% confidence interval (CI). The primary outcomes included visual analogue scale (VAS) for pain and functional assessments: the timed up-and-go (TUG) and 6-minute walk test (6MWT). We identified 19 eligible RCTs with 15 trials (n=1706) for people who underwent TKR, 3 trials (n=383) for THR and 1 (n=60) for lumbar discectomy. There were 3 types of digital rehabilitation interventions involved in this review: telerehabilitation relying on either telephone counselling (8 trials, n=1130) or videoconferencing (4 trials, n=384), gamebased therapy (5 trials, n=308) and software (3 trials, n=327). Seven studies were rated as good quality (a PEDro score of 7 or greater). The pooled analysis of VAS pain data included 5 trials (n=438) assessing post TKR rehabilitation and 1 trial (n=60) assessing post lumbar discectomy rehabilitation. The results showed that, compared to usual care, disruptive technologybased interventions are more effective in reducing pain (MD = -0.19; 95% CI: -0.35, -0.02) for people undergoing TKR. Results of TUG were available from 2 trials (n=207) assessing post TKR rehabilitation and 1 trial (n=72) in THR. Compared to usual care, the intervention showed significant effects in TUG for people who underwent TKR (MD: -7.03; 95% CI: -11.18, -2.88). Pooled estimates from 2 trials (n=258) for people undergoing TKR showed the digital-enabled rehabilitation was not superior to usual care in the 6MWT (MD: -29.36; 95% CI: -65.71, 6.99). Three trials for people who underwent TKR investigated patient compliance via exercise diaries, leaving inconclusive results. No difference in rates of hospital readmissions or treatment-related adverse events were observed. There is moderate quality evidence that current digital-enabled rehabilitation shows small but significant effects over usual rehabilitation in reducing pain and improving mobility post TKR. No evidence was observed for people undergoing THR or lumbar spinal surgery rehabilitation. Digital rehabilitation is technically feasible, well-accepted and can be used safely in people undergoing musculoskeletal surgeries.

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[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=f88c51c89c651a936fcecb0295277cd4)

1. **Telerehabilitation booster sessions and remote patient monitoring in the management of chronic low back pain: A case series.**  
   Peterson Seth Physiotherapy Theory and Practice 2018;34(5):393-402.

Improvements in chronic low back pain (CLBP) seen in physical therapy do not appear to be retained over the long term. Booster sessions have been proposed, but barriers exist to their implementation. Telerehabilitation (TR) and remote patient monitoring (RPM) may be ways to circumvent these barriers. The purpose of this case series was to describe the implementation of TR booster sessions and RPM in three patients with CLBP. Three females with CLBP tracked their daily pain level and home exercise program adherence using a mobile phone application for 12 months following discharge from traditional face-to-face physical therapy. Synchronous audio and video TR booster sessions were conducted at months 1, 3, 6, and 12. All patients met their individual goals. They demonstrated excellent home exercise program adherence and self-efficacy. A temporary increase in pain was seen in all patients, but they managed solely with the TR booster sessions and without other healthcare resources. Satisfaction with the program was very high. This case series describes the use of TR booster sessions and RPM in three patients with CLBP. The positive results suggest this approach may be helpful in improving long-term management of patients with CLBP but demand further investigation.

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1. **The potential of alternatives to face-to-face consultation in general practice, and the impact on different patient groups: a mixed-methods case study.**  
   Atherton Health Services and Delivery Research 2018;6(20):1-232.

There is international interest in the potential role of different forms of communication technology to provide an alternative to face-to-face consultations in health care. There has been considerable rhetoric about the need for general practices to offer consultations by telephone, e-mail or internet video. However, little is understood about how, under what conditions, for which patients and in what ways these approaches may offer benefits to patients and practitioners in general practice. The r objectives were to review existing evidence about alternatives to face-to-face consultation; conduct a scoping exercise to identify the ways in which general practices currently provide these alternatives; recruit eight general practices as case studies for focused ethnographic research, exploring how practice context, patient characteristics, type of technology and the purpose of the consultation interact to determine the impact of these alternatives; and synthesise the findings in order to develop a website resource about the implementation of alternatives to face-to-face consultations and a framework for subsequent evaluation.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=1986d7c0aaf3908cfc735d56353825fd)

1. **Use of videoconferencing for physical therapy in people with musculoskeletal conditions: A systematic review.**  
   Grona Journal of Telemedicine & Telecare 2018;24(5):341-355.

Physical therapists are key players in the management of musculoskeletal conditions, which are common in rural and remote communities. There are few physical therapists in rural regions compared to potential need, so care is either not provided or must be sought in urban centers, requiring travel and time away from work and family to access services. Telerehabilitation strategies, such as real-time videoconferencing, are emerging as possible solutions to address shortages in rural physical therapy services. This review will: (1) determine the validity and the reliability of secure videoconferencing for physical therapy management of musculoskeletal conditions; (2) determine the health, system, and process outcomes when using secure videoconferencing for physical therapy management of musculoskeletal conditions. A protocol-driven systematic review of four databases was carried out by two independent reviewers. Study criteria included English language articles from January 2003 to December 2016, on physical therapy management using secure videoconferencing, pertaining to adults 18-80 years with chronic musculoskeletal disorders. Randomized controlled trials, pre-experimental studies, and case-control studies were included. Quality analysis was performed utilizing standardized tools specific for the study designs. Validity and reliability studies were identified as having high risk of bias. Intervention studies were of moderate quality, and found positive impact on health outcomes and satisfaction. Two studies evaluated costs, with evidence of cost savings in one study. More robust research is required to evaluate long-term effects of telerehabilitation for physical therapy management of musculoskeletal disorders, including cost-benefit analyses.

1. **"Sounds a Bit Crazy, But It Was Almost More Personal:" A Qualitative Study of Patient and Clinician Experiences of Physical Therapist-Prescribed Exercise For Knee Osteoarthritis Via Skype.**  
   Hinman R. S. Arthritis Care & Research 2017;69(12):1834-1844.

Objective: To explore the experience of patients and physical therapists with Skype for exercise management of knee osteoarthritis (OA).Methods: This was a qualitative study. The Donabedian model for quality assessment in health care (structure, process, and outcomes) informed semistructured individual interview questions. The study involved 12 purposively sampled patients with knee OA who received physical therapist-prescribed exercise over Skype, and all therapists (n = 8) who delivered the intervention in a clinical trial were interviewed about their experiences. Interviews were audio recorded and transcribed. Two investigators undertook coding and analysis using a thematic approach.Results: Six themes arose from both patients and therapists. The themes were Structure: technology (easy to use, variable quality, set-up assistance helpful) and patient convenience (time efficient, flexible, increased access); Process: empowerment to self-manage (facilitated by home environment and therapists focusing on effective treatment) and positive therapeutic relationships (personal undivided attention from therapists, supportive friendly interactions); and Outcomes: satisfaction with care (satisfying, enjoyable, patients would recommend, therapists felt Skype more useful as adjunct to usual practice) and patient benefits (reduced pain, improved function, improved confidence and self-efficacy). A seventh theme arose from therapists regarding process: adjusting routine treatment (need to modify habits, discomfort without hands-on, supported by research environment).Conclusion: Patients and physical therapists described mostly positive experiences using Skype as a service delivery model for physical therapist-supervised exercise management of moderate knee OA. Such a model is feasible and acceptable and has the potential to increase access to supervised exercise management for people with knee OA, either individually or in combination with traditional in-clinic visits.

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[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=26780d1ebd9081aa434c7dfe97d8bf9a)

1. **Clinical outcomes of remote asynchronous telerehabilitation are equivalent to traditional therapy following total knee arthroplasty: A randomized control study.**  
   Bini Journal of Telemedicine & Telecare 2017;23(2):239-247.

Introduction Successful post-operative telerehabilitation following total knee replacement (TKR) has been documented using synchronous (real-time) video. Bandwidth and the need for expensive hardware are cited as barriers to implementation. Web-based asynchronous visual platforms promise to address these problems but have not been evaluated. We performed a randomized control study comparing an asynchronous video-based software platform to in-person outpatient physical therapy visits following TKR. Materials and methods Fifty-one patients were randomized to either the intervention group, using an asynchronous video application on a mobile device, or the traditional group undergoing outpatient physical therapy. Outcome data were collected using validated instruments prior to surgery and at a minimum three-month follow-up. Results Twenty-nine patients completed the study. There were no statistically significant differences in any clinical outcome between groups. The satisfaction with care was equivalent between groups. Overall utilization of hospital-based resources was 60% less than for the traditional group. Discussion We report that clinical outcomes following asynchronous telerehabilitation administered over the web and through a hand-held device were not inferior to those achieved with traditional care. Outpatient resource utilization was lower. Patient satisfaction was high for both groups. The results suggest that asynchronous telerehabilitation may be a more practical alternative to real-time video visits and are clinically equivalent to the in-person care model.

1. **Effectiveness of telerehabilitation programme following surgery in shoulder impingement syndrome (SIS): Study protocol for a randomized controlled non-inferiority trial**  
   Pastora-Bernal J.-M. Trials 2017;18(1):No page numbers.

Background: Shoulder pain is common in society, with high prevalence in the general population. Shoulder impingement syndrome (SIS) is the most frequent cause. Patients suffer pain, muscle weakness and loss of movement in the affected joint. Initial treatment is predominantly conservative. The surgical option has high success rates and is often used when conservative strategy fails. Traditional physiotherapy and post-operative exercises are needed for the recovery of joint range, muscle strength, stability and functionality. Telerehabilitation programmes have shown positive results in some orthopaedic conditions after surgery. Customized telerehabilitation intervention programmes should be developed to recover shoulder function after SIS surgery. The objective of this study is to evaluate the feasibility and effectiveness of a telerehabilitation intervention compared with usual care in patients after subacromial decompression surgery. <br/>Method(s): We will compare an intervention group receiving videoconferences and a telerehabilitation programme to a control group receiving traditional physiotherapy intervention in a single-blind, randomized controlled non-inferiority trial study design. <br/>Discussion(s): Through this study, we will further develop our preliminary data set and practical experience with the telerehabilitation programmes to evaluate their effectiveness and compare this with traditional intervention. We will also explore patient satisfaction and cost-effectiveness. Patient enrolment is ongoing. Trial registration: ClinicalTrials.gov, NCT02909920. 14 September 2016.<br/>Copyright &#xa9; 2017 The Author(s).

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1. **Home-based telerehabilitation is not inferior to a centre-based program in patients with chronic heart failure: a randomised trial.**  
   Hwang Journal of Physiotherapy (Elsevier) 2017;63(2):101-107.

Question Is a 12-week, home-based telerehabilitation program conducted in small groups non-inferior to a traditional centre-based program in terms of the change in 6-minute walk distance? Is the telerehabilitation program also non-inferior to a centre-based program in terms of functional capacity, muscle strength, quality of life, urinary incontinence, patient satisfaction, attendance rates, and adverse events? Design Randomised, parallel, non-inferiority trial with concealed allocation, intention-to-treat analysis and assessor blinding. Participants Patients with stable chronic heart failure (including heart failure with reduced or preserved ejection fraction) were recruited from two tertiary hospitals in Brisbane, Australia. Intervention The experimental group received a 12-week, real-time exercise and education intervention delivered into the participant’s home twice weekly, using online videoconferencing software. The control group received a traditional hospital outpatient-based program of the same duration and frequency. Both groups received similar exercise prescription. Outcome measures Participants were assessed by independent assessors at baseline (Week 0), at the end of the intervention (Week 12) and at follow-up (Week 24). The primary outcome was a between-group comparison of the change in 6-minute walk distance, with a non-inferiority margin of 28 m. Secondary outcomes included other functional measures, quality of life, patient satisfaction, program attendance rates and adverse events. Results In 53 participants (mean age 67 years, 75% males), there were no significant between-group differences on 6-minute walk distance gains, with a mean difference of 15 m (95% CI –28 to 59) at Week 12. The confidence intervals were within the predetermined non-inferiority range. The secondary outcomes indicated that the experimental intervention was at least as effective as traditional rehabilitation. Significantly higher attendance rates were observed in the telerehabilitation group. Conclusion Telerehabilitation was not inferior to a hospital outpatient-based rehabilitation program in patients with chronic heart failure. Telerehabilitation appears to be an appropriate alternative because it promotes greater attendance at the rehabilitation sessions. Trial registration ACTRN12613000390785. [Hwang R, Bruning J, Morris NR, Mandrusiak A, Russell T (2017) Home-based telerehabilitation is not inferior to a centre-based program in patients with chronic heart failure: a randomised trial. Journal of Physiotherapy 63: 101–107]

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1. **Role of telerehabilitation in patients following total knee arthroplasty: evidence from a systematic literature review and meta-analysis.**  
   Shukla H. Journal of Telemedicine and Telecare 2017;23(2):339-346.

Increased physical activity and functional ability are the goals of total knee replacement surgery. Therefore, adequate rehabilitation is required for the recovery of patients after discharge from hospital following total knee arthroplasty (TKA). This systematic literature review aimed to evaluate the effectiveness of home telerehabilitation in patients who underwent TKA. Methods Studies published in the English language between 2000 and 2014 were retrieved from Embase, PubMed, and Cochrane databases using relevant search strategies. Two researchers independently reviewed the studies as per the Cochrane methodology for systematic literature review. We considered telerehabilitation sessions as those that were conducted by experienced physiotherapists, using videoconferencing to patients' homes via an internet connection. The outcomes assessed included: knee movement (knee extension and flexion); quadriceps muscle strength; functional assessment (the timed up-and-go test); and assessment of pain, stiffness, and functional capacity using the Western Ontario and McMaster Universities Osteoarthritis Index and visual analogue scale for pain. Results In total, 160 potentially relevant studies were screened. Following the screening of studies as abstracts and full-text publications, six primary publications (four randomized controlled trials, one non-randomized controlled trial, and one single-arm trial) were included in the review. Patients experienced high levels of satisfaction with the use of telerehabilitation alone. There was no significant difference in change in active knee extension and flexion in the home telerehabilitation group as compared to the control group (mean difference (MD) -0.52, 95% CI -1.39 to 0.35, p = 0.24 and MD 1.14, 95% CI -0.61 to 2.89, p = 0.20, respectively). The patients in the home telerehabilitation group showed improvement in physical activity and functional status similar to patients in the conventional therapy group. Discussion The evidence from this systematic literature review demonstrated that telerehabilitation is a practical alternative to conventional face-to-face rehabilitation therapy in patients who underwent TKA.

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1. **Telehealth Versus In-Person Acceptance and Commitment Therapy for Chronic Pain: A Randomized Noninferiority Trial.**  
   Herbert Matthew Scott Journal of Pain 2017;18(2):200-211.

The purpose of this randomized noninferiority trial was to compare video teleconferencing (VTC) versus in-person (IP) delivery of an 8-week acceptance and commitment therapy (ACT) intervention among veterans with chronic pain (N = 128) at post-treatment and at 6-month follow-up. The primary outcome was the pain interference subscale of the Brief Pain Inventory. Secondary outcomes included measures of pain severity, mental and physical health-related quality of life, pain acceptance, activity level, depression, pain-related anxiety, and sleep quality. In intent to treat analyses using mixed linear effects modeling, both groups exhibited significant improvements on primary and secondary outcomes, with the exception of sleep quality. Further, improvements in activity level at 6-month follow-up were significantly greater in the IP group. The noninferiority hypothesis was supported for the primary outcome and several secondary outcomes. Treatment satisfaction was similar between groups; however, significantly more participants withdrew during treatment in the VTC group compared with the IP group, which was moderated by activity level at baseline. These findings generally suggest that ACT delivered via VTC can be as effective and acceptable as IP delivery for chronic pain. Future studies should examine the optimal delivery of ACT for patients with chronic pain who report low levels of activity. This trial was registered at ClinicalTrials.gov (NCT01055639).Perspective: This study suggests that ACT for chronic pain can be implemented via VTC with reductions in pain interference comparable with IP delivery. This article contains potentially important information for clinicians using telehealth technology to deliver psychosocial interventions to individuals with chronic pain.

1. **Virtual online consultation: advantages and limitations (VOCAL) study.**  
   Greenhalgh BMJ Open 2016;6(1):e009388.

The research literature on video consultations is sparse. Such consultations offer potential advantages to patients (who are spared the cost and inconvenience of travel) and the healthcare system (eg, they may be more cost-effective), but fears have been expressed that they may be clinically risky and/or less acceptable to patients or staff, and they bring significant technical, logistical and regulatory challenges. The authors anticipate that this study will contribute to a balanced assessment of when, how and in what circumstances this model might be introduced.

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1. **Effects of physical therapy delivery via home video telerehabilitation on functional and health-related quality of life outcomes.**  
   Levy Journal of Rehabilitation Research & Development 2015;52(3):361-369.

This study examined functional outcomes, health-related quality of life (HRQoL), and satisfaction in a group of Veterans who received physical therapy via an in-home video telerehabilitation program, the Rural Veterans TeleRehabilitation Initiative (RVTRI). A retrospective, pre-post study design was used. Measures obtained from 26 Veterans who received physical therapy in the RVTRI program between February 22, 2010, and April 1, 2011, were analyzed. Outcomes were the Functional Independence Measure (FIM); Quick Disabilities of the Arm, Shoulder, and Hand measure; Montreal Cognitive Assessment (MoCA); and the 2-minute walk test (2MWT). HRQoL was assessed using the Veterans RAND 12-Item Health Survey (VR-12), and program satisfaction was evaluated using a telehealth satisfaction scale. Average length of participation was 99.2 +/- 43.3 d and Veterans, on average, received 15.2 +/- 6.0 therapeutic sessions. Significant improvement was shown in the participants' FIM (p < 0.001, r = 0.63), MoCA (p = 0.01, r = 0.44), 2MWT (p = 0.006, r = 0.73), and VR-12 (p = 0.02, r = 0.42). All Veterans reported satisfaction with their telerehabilitation experiences. Those enrolled in the RVTRI program avoided an average of 2,774.7 +/- 3,197.4 travel miles, 46.3 +/- 53.3 hr of driving time, and $1,151.50 +/- $1,326.90 in travel reimbursement. RVTRI provided an effective real-time, home-based, physical therapy.

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1. **Identifying perceived barriers to videoconferencing by rehabilitation medicine providers**  
   Mozer R. Journal of Telemedicine and Telecare 2015;21(8):479-84.

The aim of this study was to identify barriers to the utilisation of videoconferencing within a multidisciplinary rehabilitation medicine healthcare team, as the first step towards creating a telerehabilitation service. A survey was developed on video-conference use and barriers to use, and distributed to healthcare providers including rehabilitation medicine societies and allied health societies through an anonymous link to SurveyMonkey(R). There were 254 respondents, practicing primarily in Australia (n = 245), in various healthcare roles. One-hundred and fifty-nine (66%) of respondents used videoconferencing regularly, primarily for their own education. Respondents not currently utilising videoconferencing (n = 82, 34%) ranked the reasons for this and provided free-text responses to explain why this modality was not being utilised in practice. Respondents were reluctant to use videoconferencing because of perceived increase in time needed for video consultations compared to face-to-face consultations, concerns with lack of privacy and confidentiality, and a lack of clinical practice guidelines for video consultation. We believe many barriers to videoconferencing by healthcare providers can be managed with appropriate education and targeted training. Future research studies, which focus on standards and clinical practice guidelines for videoconferencing by healthcare providers, may result in increased utilisation of this modality for healthcare delivery in rehabilitation medicine.

1. **Telerehabilitation for persons with multiple sclerosis.**  
   Khan F. Cochrane Database of Systematic Reviews 2015;(4):No page numbers.

Telerehabilitation, an emerging method, extends rehabilitative care beyond the hospital, and facilitates multifaceted, often psychotherapeutic approaches to modern management of patients using telecommunication technology at home or in the community. Although a wide range of telerehabilitation interventions are trialed in persons with multiple sclerosis (pwMS), evidence for their effectiveness is unclear. To investigate the effectiveness and safety of telerehabilitation intervention in pwMS for improved patient outcomes. Specifically, this review addresses the following questions: does telerehabilitation achieve better outcomes compared with traditional face-to-face intervention; and what types of telerehabilitation interventions are effective, in which setting and influence which specific outcomes (impairment, activity limitation and participation)? We performed a literature search using the Cochrane Multiple Sclerosis and Rare Diseases of the Central Nervous System Review Group Specialised Register( 9 July, 2014.) We handsearched the relevant journals and screened the reference lists of identified studies, and contacted authors for additional data. Randomised controlled trials (RCTs) and controlled clinical trials (CCTs) that reported telerehabilitation intervention/s in pwMS and compared them with some form of control intervention (such as lower level or different types of intervention, minimal intervention, waiting-list controls or no treatment (or usual care); interventions given in different settings) in adults with MS.Data Collection and Analysis: Two review authors independently selected studies and extracted data. Three review authors assessed the methodological quality of studies using the GRADEpro software (GRADEpro 2008) for best-evidence synthesis. A meta-analysis was not possible due to marked methodological, clinical and statistical heterogeneity between included trials and between measurement tools used. Hence, we performed a best-evidence synthesis using a qualitative analysis. Nine RCTs, one with two reports, (N = 531 participants, 469 included in analyses) investigated a variety of telerehabilitation interventions in adults with MS. The mean age of participants varied from 41 to 52 years (mean 46.5 years) and mean years since diagnosis from 7.7 to 19.0 years (mean 12.3 years). The majority of the participants were women (proportion ranging from 56% to 87%, mean 74%) and with a relapsing-remitting course of MS. These interventions were complex, with more than one rehabilitation component and included physical activity, educational, behavioural and symptom management programmes.All studies scored 'low' on the methodological quality assessment. Overall, the review found 'low-level' evidence for telerehabilitation interventions in reducing short-term disability and symptoms such as fatigue. There was also 'low-level' evidence supporting telerehabilitation in the longer term for improved functional activities, impairments (such as fatigue, pain, insomnia); and participation measured by quality of life and psychological outcomes. There were limited data on process evaluation (participants'/therapists' satisfaction) and no data available for cost effectiveness. There were no adverse events reported as a result of telerehabilitation interventions. There is currently limited evidence on the efficacy of telerehabilitation in improving functional activities, fatigue and quality of life in adults with MS. A range of telerehabilitation interventions might be an alternative method of delivering services in MS populations. There is insufficient evidence to support on what types of telerehabilitation interventions are effective, and in which setting. More robust trials are needed to build evidence for the clinical and cost effectiveness of these interventions.

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1. **Role of telerehabilitation in patients followin g total knee arthrop lasty: evidence from systematic literature review**  
   Shukla H. Value in Health 2014;17(3):No page numbers.

Increased physical activity and functional ability are the goals of total knee replacement surgery. Therefore, adequate rehabilitation is required for the recovery of patients after discharge from hospital following total knee arthroplasty (TKA). This systematic literature review aims to evaluate the effectiveness of home telerehabilitation in patients who underwent TKA. Studies published in the English language between 2000 and 2014 were retrieved from Embase, PubMed and Cochrane databases using relevant search strategies. Two researchers independently reviewed studies as per the Cochrane methodology for systematic reviews. We considered telerehabilitation sessions as those that were conducted using videoconferencing by experienced physiotherapists to patients' home via an internet connection. The outcomes assessed include knee movement (knee extension and flexion); quadriceps muscle strength; functional assessment (the timed up-and-go test); assessment of pain, stiffness and functional capacity with Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) and visual analog scale (VAS) for pain. Result(s): In total, 160 potentially relevant studies were screened. Following screening of studies as abstracts and full-text publications, seven primary publications (four randomized controlled trials [RCT], one non-RCT, and two single arm trials) were included in the review. Patients experienced high levels of satisfaction with the use of telerehabilitation alone. The patients in the home telerehabilitation group showed improvement in physical activity and functional status similar to patients in conventional therapy group (comparative studies). The detailed analyses of the findings from studies are still ongoing and will be presented on completion. A preliminary analysis shows that home telerehabilitation method is an acceptable rehabilitation method to patients who underwent TKA. The evidence from this systematic literature review will hopefully demonstrate telerehabilitation to be a practical alternative to conventional face-to-face rehabilitation therapy in patients who underwent TKA.

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1. **Patients' experiences of telerehabilitation at home after shoulder joint replacement.**  
   Eriksson Lisbeth Journal of Telemedicine & Telecare 2011;17(1):25-30.

We investigated the experience of ten patients who received video-based physiotherapy at home for two months after a shoulder joint replacement. Videoconferencing took place via the patient's home broadband connection at a bandwidth of 256-768 kbit/s. Qualitative interviews were carried out, transcribed and analysed. Through qualitative content analysis six categories were identified: (1) a different reinforced communication; (2) pain-free exercising as an effective routine; (3) from a dependent patient to a strengthened person at home; (4) closeness at a distance; (5) facilitated daily living; and (6) continuous physiotherapy chain. The access to bodily knowledge, continuity, collaboration and being at home were all aspects that contributed to the patients' recovery. The patients described experiences of safety, and strengthening during their daily exercise routine at home. The frequent interplay with the patient during telerehabilitation made it possible for the physiotherapist to make an individual judgement about each patient; this could be one reason for the positive findings. Home video-based physiotherapy may be useful in other kinds of physiotherapy.

1. **Virtual outreach: a randomised controlled trial and economic evaluation of joint teleconferenced medical consultations.**  
   Wallace Health Technology Assessment 2004;8(50):1-106.

A randomised controlled trial comparing joint teleconsultations between GPs, specialists and patients with standard outpatient referral. It was accompanied by an economic evaluation. The trial was centred on the Royal Free Hampstead NHS Trust, London, and the Royal Shrewsbury Hospital Trust in Shropshire. The project teams recruited and trained a total of 134 GPs from 29 practices and 20 consultant specialists. Virtual outreach consultations result in significantly higher levels of patient satisfaction than standard outpatient appointments and lead to substantial reductions in numbers of tests and investigations, but they are variably associated with increased rates of offer of follow-up according to speciality and site.

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## B. Search History

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| 116. | AMED | (accurx).ti,ab | 0 |
| 117. | AMED | (physiotherapy).ti,ab | 4802 |
| 118. | AMED | "PHYSICAL THERAPY"/ | 0 |
| 119. | AMED | (physical therapy).ti,ab | 4188 |
| 120. | AMED | (hands on assessment).ti,ab | 4 |
| 121. | AMED | (face to face).ti,ab | 643 |
| 122. | AMED | (usual care).ti,ab | 649 |
| 123. | AMED | (value added service).ti,ab | 0 |
| 124. | AMED | (satisfaction).ti,ab | 4823 |
| 125. | AMED | "CONSUMER SATISFACTION"/ | 222 |
| 126. | AMED | (safety).ti,ab | 4078 |
| 127. | AMED | SAFETY/ | 1746 |
| 128. | AMED | (adverse events).ti,ab | 1163 |
| 129. | AMED | "ADVERSE HEALTH CARE EVENT"/ | 0 |
| 130. | AMED | (92 OR 94 OR 96 OR 98 OR 99 OR 101 OR 104 OR 106 OR 108 OR 109 OR 111) | 31390 |
| 131. | AMED | (117 OR 119 OR 120 OR 121 OR 122) | 9983 |
| 132. | AMED | (123 OR 124 OR 126 OR 128) | 9465 |
| 133. | AMED | (112 AND 130 AND 131 AND 132) | 0 |
| 134. | AMED | (112 AND 131) | 3 |
| 135. | EMBASE | (pain).ti,ab | 905820 |
| 136. | EMBASE | PAIN/ | 305410 |
| 137. | EMBASE | (osteoarthritis).ti,ab | 90496 |
| 138. | EMBASE | OSTEOARTHRITIS/ | 83951 |
| 139. | EMBASE | (back pain).ti,ab | 65416 |
| 140. | EMBASE | "BACK PAIN"/ OR "LOW BACK PAIN"/ | 71449 |
| 141. | EMBASE | (spinal pain).ti,ab | 2086 |
| 142. | EMBASE | (shoulder pain).ti,ab | 8752 |
| 143. | EMBASE | "SHOULDER PAIN"/ | 16170 |
| 144. | EMBASE | (knee pain).ti,ab | 10879 |
| 145. | EMBASE | "KNEE PAIN"/ | 16588 |
| 146. | EMBASE | (joint pain).ti,ab | 11361 |
| 147. | EMBASE | (muscle pain).ti,ab | 5243 |
| 148. | EMBASE | "MUSCLE PAIN"/ | 47558 |
| 149. | EMBASE | (muscle strain).ti,ab | 765 |
| 150. | EMBASE | "SPRAINS AND STRAINS"/ | 201971 |
| 151. | EMBASE | (tendonitis).ti,ab | 1279 |
| 152. | EMBASE | (bursitis).ti,ab | 3289 |
| 153. | EMBASE | BURSITIS/ | 4646 |
| 154. | EMBASE | MYALGIA/ | 50898 |
| 155. | EMBASE | (myalgia).ti,ab | 10848 |
| 156. | EMBASE | (video consultation).ti,ab | 189 |
| 157. | EMBASE | "REMOTE CONSULTATION"/ | 8871 |
| 158. | EMBASE | (one consult).ti,ab | 19 |
| 159. | EMBASE | TELEHEALTH/ OR VIDEOCONFERENCING/ OR TELECONFERENCING/ | 10898 |
| 160. | EMBASE | (accurx).ti,ab | 1 |
| 161. | EMBASE | (physiotherapy).ti,ab | 31865 |
| 162. | EMBASE | "PHYSICAL THERAPY"/ | 83132 |
| 163. | EMBASE | (physical therapy).ti,ab | 25769 |
| 164. | EMBASE | (hands on assessment).ti,ab | 19 |
| 165. | EMBASE | (face to face).ti,ab | 36493 |
| 166. | EMBASE | (usual care).ti,ab | 23292 |
| 167. | EMBASE | (value added service).ti,ab | 36 |
| 168. | EMBASE | (satisfaction).ti,ab | 186282 |
| 169. | EMBASE | "CONSUMER SATISFACTION"/ | 49740 |
| 170. | EMBASE | (safety).ti,ab | 768222 |
| 171. | EMBASE | SAFETY/ | 254387 |
| 172. | EMBASE | (adverse events).ti,ab | 250367 |
| 173. | EMBASE | "ADVERSE HEALTH CARE EVENT"/ | 0 |
| 174. | EMBASE | (135 OR 136 OR 137 OR 138 OR 139 OR 140 OR 141 OR 142 OR 143 OR 144 OR 145 OR 146 OR 147 OR 148 OR 149 OR 150 OR 151 OR 152 OR 153 OR 154 OR 155) | 1325331 |
| 175. | EMBASE | (156 OR 157 OR 158 OR 159 OR 160) | 19283 |
| 176. | EMBASE | (161 OR 162 OR 163 OR 164 OR 165 OR 166) | 158248 |
| 177. | EMBASE | (167 OR 168 OR 169 OR 170 OR 171 OR 172 OR 173) | 1175813 |
| 178. | EMBASE | (174 AND 175 AND 176 AND 177) | 30 |
| 179. | Medline | (44 OR 45 OR 46 OR 47 OR 48 OR 49 OR 50 OR 51 OR 52 OR 53 OR 54 OR 55 OR 56 OR 57 OR 58 OR 59 OR 60 OR 61 OR 62 OR 63) | 728268 |
| 180. | Medline | (83 AND 84 AND 85 AND 179) | 12 |
| 181. | PubMed | (pain).ti,ab | 827070 |
| 182. | PubMed | (osteoarthritis).ti,ab | 0 |
| 183. | PubMed | (back pain).ti,ab | 71874 |
| 184. | PubMed | spinal pain | 0 |
| 185. | PubMed | (shoulder pain).ti,ab | 22298 |
| 186. | PubMed | (knee pain).ti,ab | 7463 |
| 187. | PubMed | (joint pain).ti,ab | 85275 |
| 188. | PubMed | (muscle pain).ti,ab | 49574 |
| 189. | PubMed | (muscle strain).ti,ab | 29115 |
| 190. | PubMed | (tendonitis).ti,ab | 14376 |
| 191. | PubMed | (bursitis).ti,ab | 0 |
| 192. | PubMed | (myalgia).ti,ab | 8145 |
| 193. | PubMed | video consultation | 0 |
| 194. | PubMed | (one consult).ti,ab | 102 |
| 195. | PubMed | (accurx).ti,ab | 0 |
| 196. | PubMed | (physiotherapy).ti,ab | 184997 |
| 197. | PubMed | (physical therapy).ti,ab | 317705 |
| 198. | PubMed | hands on assessment | 0 |
| 199. | PubMed | (face to face).ti,ab | 26413 |
| 200. | PubMed | (usual care).ti,ab | 16331 |
| 201. | PubMed | (value added service).ti,ab | 28 |
| 202. | PubMed | (satisfaction).ti,ab | 202070 |
| 203. | PubMed | (safety).ti,ab | 626175 |
| 204. | PubMed | (adverse events).ti,ab | 142206 |
| 205. | PubMed | (181 OR 182 OR 183 OR 184 OR 185 OR 186 OR 187 OR 188 OR 189 OR 190 OR 191) | 933505 |
| 206. | PubMed | (193 OR 194 OR 195) | 237 |
| 207. | PubMed | (196 OR 197 OR 198 OR 199 OR 200) | 381817 |
| 208. | PubMed | (201 OR 202 OR 203 OR 204) | 892430 |
| 209. | PubMed | (205 AND 206 AND 207 AND 208) | 0 |
| 210. | PubMed | (205 AND 206 AND 207) | 1 |
| 1. | CINAHL | (pain).ti,ab | 258599 |
| 2. | CINAHL | PAIN/ | 75949 |
| 3. | CINAHL | (osteoarthritis).ti,ab | 28094 |
| 4. | CINAHL | OSTEOARTHRITIS/ | 14545 |
| 5. | CINAHL | (back pain).ti,ab | 32434 |
| 6. | CINAHL | "BACK PAIN"/ OR "LOW BACK PAIN"/ | 31898 |
| 7. | CINAHL | (spinal pain).ti,ab | 14614 |
| 8. | CINAHL | (shoulder pain).ti,ab | 9253 |
| 9. | CINAHL | "SHOULDER PAIN"/ | 4259 |
| 10. | CINAHL | (knee pain).ti,ab | 15151 |
| 11. | CINAHL | "KNEE PAIN"/ | 1326 |
| 12. | CINAHL | (joint pain).ti,ab | 17609 |
| 13. | CINAHL | (muscle pain).ti,ab | 15255 |
| 14. | CINAHL | "MUSCLE PAIN"/ | 3013 |
| 15. | CINAHL | (muscle strain).ti,ab | 1843 |
| 16. | CINAHL | "SPRAINS AND STRAINS"/ | 2551 |
| 17. | CINAHL | (tendonitis).ti,ab | 445 |
| 18. | CINAHL | (bursitis).ti,ab | 847 |
| 19. | CINAHL | BURSITIS/ | 968 |
| 20. | CINAHL | (video consultation).ti,ab | 828 |
| 21. | CINAHL | "REMOTE CONSULTATION"/ | 2035 |
| 22. | CINAHL | (one consult).ti,ab | 1588 |
| 23. | CINAHL | TELEHEALTH/ OR VIDEOCONFERENCING/ OR TELECONFERENCING/ | 11593 |
| 24. | CINAHL | (accurx).ti,ab | 0 |
| 25. | CINAHL | (physiotherapy).ti,ab | 15330 |
| 26. | CINAHL | "PHYSICAL THERAPY"/ | 36311 |
| 27. | CINAHL | (physical therapy).ti,ab | 33214 |
| 28. | CINAHL | (hands on assessment).ti,ab | 7339 |
| 29. | CINAHL | (face to face).ti,ab | 71410 |
| 30. | CINAHL | (usual care).ti,ab | 16181 |
| 31. | CINAHL | (value added service).ti,ab | 725 |
| 32. | CINAHL | (satisfaction).ti,ab | 81586 |
| 33. | CINAHL | "CONSUMER SATISFACTION"/ | 10888 |
| 34. | CINAHL | (safety).ti,ab | 185186 |
| 35. | CINAHL | SAFETY/ | 29318 |
| 36. | CINAHL | (adverse events).ti,ab | 67083 |
| 37. | CINAHL | "ADVERSE HEALTH CARE EVENT"/ | 8193 |
| 38. | CINAHL | (1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 18 OR 19) | 317796 |
| 39. | CINAHL | (20 OR 21 OR 22 OR 23 OR 24) | 15467 |
| 40. | CINAHL | (25 OR 26 OR 27 OR 28 OR 29 OR 30) | 162197 |
| 41. | CINAHL | (31 OR 32 OR 33 OR 34 OR 35 OR 36 OR 37) | 333370 |
| 42. | CINAHL | (38 AND 39 AND 40 AND 41) | 16 |
| 43. | CINAHL | 42 [DT 2015-2020] [Publication types Randomized Controlled Trial OR Systematic Review] [Human age groups All Adult] [Languages eng] | 4 |
| 44. | Medline | (pain).ti,ab | 607875 |
| 45. | Medline | PAIN/ | 132308 |
| 46. | Medline | (osteoarthritis).ti,ab | 61983 |
| 47. | Medline | OSTEOARTHRITIS/ | 36655 |
| 48. | Medline | (back pain).ti,ab | 55498 |
| 49. | Medline | "BACK PAIN"/ OR "LOW BACK PAIN"/ | 38212 |
| 50. | Medline | (spinal pain).ti,ab | 43343 |
| 51. | Medline | (shoulder pain).ti,ab | 17661 |
| 52. | Medline | "SHOULDER PAIN"/ | 4744 |
| 53. | Medline | (knee pain).ti,ab | 27606 |
| 54. | Medline | "KNEE PAIN"/ | 0 |
| 55. | Medline | (joint pain).ti,ab | 38699 |
| 56. | Medline | (muscle pain).ti,ab | 29699 |
| 57. | Medline | "MUSCLE PAIN"/ | 0 |
| 58. | Medline | (muscle strain).ti,ab | 8184 |
| 59. | Medline | "SPRAINS AND STRAINS"/ | 5191 |
| 60. | Medline | (tendonitis).ti,ab | 891 |
| 61. | Medline | (bursitis).ti,ab | 2727 |
| 62. | Medline | BURSITIS/ | 3381 |
| 63. | Medline | MYALGIA/ | 1646 |
| 64. | Medline | (video consultation).ti,ab | 975 |
| 65. | Medline | "REMOTE CONSULTATION"/ | 4692 |
| 66. | Medline | (one consult).ti,ab | 1930 |
| 67. | Medline | TELEHEALTH/ OR VIDEOCONFERENCING/ OR TELECONFERENCING/ | 1450 |
| 68. | Medline | (accurx).ti,ab | 1 |
| 69. | Medline | (physiotherapy).ti,ab | 18224 |
| 70. | Medline | "PHYSICAL THERAPY"/ | 0 |
| 71. | Medline | (physical therapy).ti,ab | 56686 |
| 72. | Medline | (hands on assessment).ti,ab | 2263 |
| 73. | Medline | (face to face).ti,ab | 163565 |
| 74. | Medline | (usual care).ti,ab | 26794 |
| 75. | Medline | (value added service).ti,ab | 507 |
| 76. | Medline | (satisfaction).ti,ab | 131408 |
| 77. | Medline | "CONSUMER SATISFACTION"/ | 0 |
| 78. | Medline | (safety).ti,ab | 489787 |
| 79. | Medline | SAFETY/ | 39396 |
| 80. | Medline | (adverse events).ti,ab | 172193 |
| 81. | Medline | "ADVERSE HEALTH CARE EVENT"/ | 0 |
| 82. | Medline | "PATIENT SATISFACTION"/ | 80596 |
| 83. | Medline | (64 OR 65 OR 66 OR 67 OR 68) | 8512 |
| 84. | Medline | (69 OR 70 OR 71 OR 72 OR 73 OR 74) | 263015 |
| 85. | Medline | (75 OR 76 OR 78 OR 79 OR 80 OR 82) | 775737 |
| 86. | Medline | (58 OR 59 OR 60 OR 61 OR 62 OR 63) | 20041 |
| 87. | Medline | (52 OR 53 OR 55 OR 56) | 85636 |
| 88. | Medline | (44 OR 46 OR 48 OR 49 OR 50 OR 51) | 660120 |
| 89. | Medline | (86 OR 87 OR 88) | 677660 |
| 90. | Medline | (83 AND 84 AND 85 AND 89) | 11 |
| 91. | Medline | 90 [DT 2015-2020] [Document type Meta-analysis OR Randomized Controlled Trial OR Review] [Human age groups Adult OR Middle Aged OR Aged OR Aged,80 and over] [Languages English] [Humans] | 2 |
| 92. | AMED | (pain).ti,ab | 29336 |
| 93. | AMED | PAIN/ | 12618 |
| 94. | AMED | (osteoarthritis).ti,ab | 3339 |
| 95. | AMED | OSTEOARTHRITIS/ | 1655 |
| 96. | AMED | (back pain).ti,ab | 6100 |
| 97. | AMED | "BACK PAIN"/ OR "LOW BACK PAIN"/ | 4787 |
| 98. | AMED | (spinal pain).ti,ab | 143 |
| 99. | AMED | (shoulder pain).ti,ab | 858 |
| 100. | AMED | "SHOULDER PAIN"/ | 530 |
| 101. | AMED | (knee pain).ti,ab | 655 |
| 102. | AMED | "KNEE PAIN"/ | 0 |
| 103. | AMED | (joint pain).ti,ab | 305 |
| 104. | AMED | (muscle pain).ti,ab | 224 |
| 105. | AMED | "MUSCLE PAIN"/ | 0 |
| 106. | AMED | (muscle strain).ti,ab | 58 |
| 107. | AMED | "SPRAINS AND STRAINS"/ | 782 |
| 108. | AMED | (tendonitis).ti,ab | 80 |
| 109. | AMED | (bursitis).ti,ab | 109 |
| 110. | AMED | BURSITIS/ | 152 |
| 111. | AMED | (myalgia).ti,ab | 75 |
| 112. | AMED | (video consultation).ti,ab | 6 |
| 113. | AMED | "REMOTE CONSULTATION"/ | 0 |
| 114. | AMED | (one consult).ti,ab | 0 |
| 115. | AMED | TELEHEALTH/ OR VIDEOCONFERENCING/ OR TELECONFERENCING/ | 0 |
| 116. | AMED | (accurx).ti,ab | 0 |
| 117. | AMED | (physiotherapy).ti,ab | 4802 |
| 118. | AMED | "PHYSICAL THERAPY"/ | 0 |
| 119. | AMED | (physical therapy).ti,ab | 4188 |
| 120. | AMED | (hands on assessment).ti,ab | 4 |
| 121. | AMED | (face to face).ti,ab | 643 |
| 122. | AMED | (usual care).ti,ab | 649 |
| 123. | AMED | (value added service).ti,ab | 0 |
| 124. | AMED | (satisfaction).ti,ab | 4823 |
| 125. | AMED | "CONSUMER SATISFACTION"/ | 222 |
| 126. | AMED | (safety).ti,ab | 4078 |
| 127. | AMED | SAFETY/ | 1746 |
| 128. | AMED | (adverse events).ti,ab | 1163 |
| 129. | AMED | "ADVERSE HEALTH CARE EVENT"/ | 0 |
| 130. | AMED | (92 OR 94 OR 96 OR 98 OR 99 OR 101 OR 104 OR 106 OR 108 OR 109 OR 111) | 31390 |
| 131. | AMED | (117 OR 119 OR 120 OR 121 OR 122) | 9983 |
| 132. | AMED | (123 OR 124 OR 126 OR 128) | 9465 |
| 133. | AMED | (112 AND 130 AND 131 AND 132) | 0 |
| 134. | AMED | (112 AND 131) | 3 |
| 135. | EMBASE | (pain).ti,ab | 905820 |
| 136. | EMBASE | PAIN/ | 305410 |
| 137. | EMBASE | (osteoarthritis).ti,ab | 90496 |
| 138. | EMBASE | OSTEOARTHRITIS/ | 83951 |
| 139. | EMBASE | (back pain).ti,ab | 65416 |
| 140. | EMBASE | "BACK PAIN"/ OR "LOW BACK PAIN"/ | 71449 |
| 141. | EMBASE | (spinal pain).ti,ab | 2086 |
| 142. | EMBASE | (shoulder pain).ti,ab | 8752 |
| 143. | EMBASE | "SHOULDER PAIN"/ | 16170 |
| 144. | EMBASE | (knee pain).ti,ab | 10879 |
| 145. | EMBASE | "KNEE PAIN"/ | 16588 |
| 146. | EMBASE | (joint pain).ti,ab | 11361 |
| 147. | EMBASE | (muscle pain).ti,ab | 5243 |
| 148. | EMBASE | "MUSCLE PAIN"/ | 47558 |
| 149. | EMBASE | (muscle strain).ti,ab | 765 |
| 150. | EMBASE | "SPRAINS AND STRAINS"/ | 201971 |
| 151. | EMBASE | (tendonitis).ti,ab | 1279 |
| 152. | EMBASE | (bursitis).ti,ab | 3289 |
| 153. | EMBASE | BURSITIS/ | 4646 |
| 154. | EMBASE | MYALGIA/ | 50898 |
| 155. | EMBASE | (myalgia).ti,ab | 10848 |
| 156. | EMBASE | (video consultation).ti,ab | 189 |
| 157. | EMBASE | "REMOTE CONSULTATION"/ | 8871 |
| 158. | EMBASE | (one consult).ti,ab | 19 |
| 159. | EMBASE | TELEHEALTH/ OR VIDEOCONFERENCING/ OR TELECONFERENCING/ | 10898 |
| 160. | EMBASE | (accurx).ti,ab | 1 |
| 161. | EMBASE | (physiotherapy).ti,ab | 31865 |
| 162. | EMBASE | "PHYSICAL THERAPY"/ | 83132 |
| 163. | EMBASE | (physical therapy).ti,ab | 25769 |
| 164. | EMBASE | (hands on assessment).ti,ab | 19 |
| 165. | EMBASE | (face to face).ti,ab | 36493 |
| 166. | EMBASE | (usual care).ti,ab | 23292 |
| 167. | EMBASE | (value added service).ti,ab | 36 |
| 168. | EMBASE | (satisfaction).ti,ab | 186282 |
| 169. | EMBASE | "CONSUMER SATISFACTION"/ | 49740 |
| 170. | EMBASE | (safety).ti,ab | 768222 |
| 171. | EMBASE | SAFETY/ | 254387 |
| 172. | EMBASE | (adverse events).ti,ab | 250367 |
| 173. | EMBASE | "ADVERSE HEALTH CARE EVENT"/ | 0 |
| 174. | EMBASE | (135 OR 136 OR 137 OR 138 OR 139 OR 140 OR 141 OR 142 OR 143 OR 144 OR 145 OR 146 OR 147 OR 148 OR 149 OR 150 OR 151 OR 152 OR 153 OR 154 OR 155) | 1325331 |
| 175. | EMBASE | (156 OR 157 OR 158 OR 159 OR 160) | 19283 |
| 176. | EMBASE | (161 OR 162 OR 163 OR 164 OR 165 OR 166) | 158248 |
| 177. | EMBASE | (167 OR 168 OR 169 OR 170 OR 171 OR 172 OR 173) | 1175813 |
| 178. | EMBASE | (174 AND 175 AND 176 AND 177) | 30 |
| 179. | Medline | (44 OR 45 OR 46 OR 47 OR 48 OR 49 OR 50 OR 51 OR 52 OR 53 OR 54 OR 55 OR 56 OR 57 OR 58 OR 59 OR 60 OR 61 OR 62 OR 63) | 728268 |
| 180. | Medline | (83 AND 84 AND 85 AND 179) | 12 |
| 181. | PubMed | (pain).ti,ab | 827070 |
| 182. | PubMed | (osteoarthritis).ti,ab | 89196 |
| 183. | PubMed | (back pain).ti,ab | 71874 |
| 184. | PubMed | (spinal pain).ti,ab | 1907 |
| 185. | PubMed | (shoulder pain).ti,ab | 22298 |
| 186. | PubMed | (knee pain).ti,ab | 7463 |
| 187. | PubMed | (joint pain).ti,ab | 85275 |
| 188. | PubMed | (muscle pain).ti,ab | 49574 |
| 189. | PubMed | (muscle strain).ti,ab | 29115 |
| 190. | PubMed | (tendonitis).ti,ab | 14376 |
| 191. | PubMed | (bursitis).ti,ab | 6028 |
| 192. | PubMed | (myalgia).ti,ab | 8145 |
| 193. | PubMed | (video consultation).ti,ab | 137 |
| 194. | PubMed | (one consult).ti,ab | 102 |
| 195. | PubMed | (accurx).ti,ab | 1 |
| 196. | PubMed | (physiotherapy).ti,ab | 184997 |
| 197. | PubMed | (physical therapy).ti,ab | 317705 |
| 198. | PubMed | (hands on assessment).ti,ab | 10 |
| 199. | PubMed | (face to face).ti,ab | 26413 |
| 200. | PubMed | (usual care).ti,ab | 16331 |
| 201. | PubMed | (value added service).ti,ab | 28 |
| 202. | PubMed | (satisfaction).ti,ab | 202070 |
| 203. | PubMed | (safety).ti,ab | 626175 |
| 204. | PubMed | (adverse events).ti,ab | 142206 |
| 205. | PubMed | (181 OR 182 OR 183 OR 184 OR 185 OR 186 OR 187 OR 188 OR 189 OR 190 OR 191) | 934597 |
| 206. | PubMed | (193 OR 194 OR 195) | 240 |
| 207. | PubMed | (196 OR 197 OR 198 OR 199 OR 200) | 382391 |
| 208. | PubMed | (201 OR 202 OR 203 OR 204) | 892430 |
| 209. | PubMed | (205 AND 206 AND 207 AND 208) | 0 |
| 210. | PubMed | (205 AND 206 AND 207) | 1 |
| 211. | CINAHL | (39 AND 40 AND 41) | 238 |
| 212. | CINAHL | 211 [DT FROM 2015] [Human age groups All Adult] [Languages eng] [Special interest Physical Therapy] | 0 |
| 213. | CINAHL | 211 [DT 2015-2020] [Human age groups All Adult] [Languages eng] | 60 |
| 214. | Medline | (83 AND 84 AND 85) | 292 |
| 215. | Medline | 214 [DT 2015-2020] [Human age groups Adult OR Middle Aged OR Aged OR Aged,80 and over] [Languages English] [Humans] | 57 |
| 216. | EMBASE | (175 AND 176 AND 177) | 454 |
| 217. | EMBASE | 216 [DT 2015-2020] [English language] [Human age groups Adult 18 to 64 years OR Aged 65+ years] [Humans] [Clinical trials Randomized Controlled Trial] [Evidence based medicine Meta Analysis OR Systematic Review] | 0 |
| 218. | EMBASE | 216 [DT 2015-2020] [English language] [Human age groups Adult 18 to 64 years OR Aged 65+ years] [Humans] | 153 |
| 219. | PubMed | (206 AND 207 AND 208 AND 209) | 0 |
| 220. | PubMed | (206 AND 207 AND 208) | 18 |

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