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Utilization Review and Utilization of Evidence-Based Guidelines

Rosetta E. Hairston
California State University, Northern California Consortium Doctor of Nursing Practice

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Utilization Review and Utilization of Evidence-Based Guidelines

Rosetta E. Hairston

A doctoral project completed in partial fulfillment of the requirements for the degree of doctor of nursing practice in the valley foundation School of Nursing, San Jose State University

April 30, 2023
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Dedication

I want to dedicate this dissertation to my parent Beatrice and Tyrone Scott, my husband, John Hairston, and my daughter Jacqueline Hairston-Silva who have supported me through my education journey.

Acknowledgments

Dr. Denise Dawkins, Project Chair

Denise Stough, Project Mentor
Utilization Review and Utilization of Evidence-Based Guidelines

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Doctor of Nursing Practice Program

The Valley Foundation School of Nursing

San José State University

April 30, 2023
Abstract

The quality improvement project focused on determining why utilization review nurses submitted epidural steroid injection treatment requests within evidence-based guidelines to peer review. The study reviewed six months of data from June 2022 through December 2022 to develop a pre-training baseline for the number of epidural steroid injection treatment requests approved by the nurse and approved by peer review. Deming's method for quality improvement was identified as the framework for implementing changes. The UR nurses were provided four weeks of refresher training on applying evidence-based guidelines to epidural steroid injection treatment requests. Post-group training sessions reflected a 91% increase in the UR nurse's approval of epidural steroid injection treatment requests. The rationale for submitting the epidural steroid injections treatment request was unexpected; however, the explanation was consistent with the nursing advocacy and purpose of utilization review.
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Utilization Review and Utilization of Evidence-Based Guidelines

Utilization Review (UR) is a case-by-case assessment of the appropriateness of medical services before their provision. (Wickizer, 2002). During the 1960s, President Lyndon Johnson introduced UR to identify the overutilization of resources and waste within the Medicare and Medicaid programs (CMS, 2006). The initial usage for UR was within the acute hospital settings, providing the determinations for admission and length of stay (Wickizer, 2002). UR gained steady interest within the health insurance industry due to research on medical necessity, findings on overutilization, and misuse of services (Wickizer, 2002).

Private and public payers of healthcare services, hospitals, insurance carriers, and managed care plans conduct utilization review as a form of cost containment and oversight of healthcare utilization (Wickizer, 2002). There are three categories of reviews prospective or pre-admission, to determine the medical necessity for hospital admissions and outpatient medical treatment, concurrent review to determine the medical need for continued hospital stay after the approval of the initial hospitalization, and retrospective reviews to identify the unauthorized service; provided was medically required (Wickizer, 2002).

Utilization Review and California Workers Compensation

In 1993 California legislators mandated a utilization review process in the Worker’s Compensation system. They required all insurers to establish and submit a utilization plan to the California Division of Workers’ Compensation (Rudolph, 2001). In 2003, California legislators authorized the American College Occupational and Environment Medicine (ACOEM) guidelines to be the principal evidenced-based guidelines (EBG) supporting the medical necessity determinations for Workman's Compensation utilization review (Haber, 2008). Implementing the necessary utilization review process was directly related to the steady increase in the cost of
medical care per injured worker and the overutilization of services. The rise in price represented over half of the total cost of medical services (Harber, 2008).

UR in Workers’ Compensation is a collaboration between the primary treating physician, the injured worker, and the insurance company (Glass, 2017). The goal of UR in worker’s compensation is no different than in private healthcare, to contain costs, identify the over usage of services, ensure patients receive reasonable, appropriate care necessary to provide positive outcomes, safe return to pre-injury status, and avoid potentially harmful, low-value care (Glass, 2017).

**Treatment Request Review**

The request for medical treatment is submitted to the UR department for medical necessity review. The nurse will review each request for services based on the submitted information from the treating physician regarding the mechanism of injury, subjective reports, objective findings, and previous treatments provided to the patient (Bean, 2020). This information is evaluated for medical necessity using evidence-based guidelines and the nurse's clinical knowledge (Bean, 2020). Immediate approval is provided when the request for treatment falls within evidence-based guidelines, and authorization notification is submitted to the requesting physician and the patient (Bean, 2020). When the requested treatment is outside evidence-based guidelines, the UR nurse will submit the request for medical necessity review for the second-level review or Peer Review (Glass, 2017).

Peer reviewers are multidisciplinary medical physicians utilizing evidence-based guidelines to determine medical necessity (Bean, 2020). Submitting treatment requests to peer review adds one to two days to receive a determination. Unnecessary delays in treatment request approval can cause a delay in recovery, treatment outcomes, excessive pain, delay in return to
work, and increased costs in the Workers’ compensation system. The turnaround time for treatment requests is crucial and jurisdictionally mandated (Bean, 2020). Treatment requests should be timely to accomplish the requesting provider’s care plan and prevent gaps and delays in medical care (Bean, 2020). Sometimes UR nurses will submit treatment requests for peer review, although the supporting documentation from the requesting physician is consistent with evidence-based guidelines. Further investigation is needed to determine why UR nurses request peer review authorizations despite available guidelines.

The Doctor of Nurse Practice (DNP) project examined the nurse's critical decision-making, proficiency to apply the evidence-based guidelines, and barriers preventing the utilization review nurses from providing authorization for epidural steroid injection treatment requests using identical evidence-based guidelines as peer reviewers.

**Literature Review**

The initial establishment of utilization review was in the 1960s with Medicare to identify the overutilization of resources and waste within the Medicare and Medicaid programs (Marjoua & Bozic, K. J., 2012).

California mandated utilization review for Worker's Compensations to control the rising cost of medical care and decrease the overutilization of medical resources (Harber et al. 2008). The state collaborated with the RAND Corporation, the University of California Los Angles, the California Division of Workers' Compensation members, the California Commission of Health and Safety Workers' Compensation, and California legislation. California chose to select the American College Occupational and Environmental Medicine existing guidelines rather than develop specific guidelines (Harber et al. 2008).
Bean et al. 2020 suggest utilization review has influenced medical care within the workers' compensation system. With the rise in medical costs, the desire to improve patient outcomes and include all available options for new treatments requires a process or gatekeeper such as UR to determine effective, medically necessary, and evidence-based medicine (Wickizer & Lessler, D. (2002).

The intention of UR is a collaborative process between the treating provider, the injured worker, and the insurance company (Glass et al., 2017). The treating provider submits a treatment request to the insurance company to obtain authorization to provide medical care to injured workers for reimbursement. Each treatment request is reviewed against evidence-based guidelines to ensure the injured worker receives the appropriate medical treatment while avoiding ineffective, potentially harmful, and low-value care (Glass et al., 2017). Registered nurses conduct the initial or first-level assessment for medical necessity (Bean, 2020). Occasionally, however, the treatment request is within evidenced based guidelines yet submitted to peer review for authorization. The question is why and how often?

Based on Benner's definition of nursing levels, the UR nurse is proficient in using her critical thinking and previous clinical experience when applying evidence-based guidelines (Benner, 1982). However, continued education and training are requirements to maintain their proficiency. Using case studies as examples for training allows the nurse to review identical situations and provide examples of how the nurse would respond to the treatment request (Benner, 1982).

Deming's Plan, Do, Check, and Act (PDCA) Model for quality improvement was the author's training model (Anderson, 1994; Anderson, 2018). The PDCA is moving in a perpetual process of assessing, planning, acting, monitoring and evaluating, reassessing, and acting again,
allowing for small changes promptly with a small group of participants, Connelly. (2021). Moser et al. 2020). The initial cycle will start by planning the change; next implementing the change, examining the collected data, and making adjustments for the next PDCA cycle. Interventions remain the same within an individual cycle but are adjusted based on the outcome data for the next PDCA cycle.

UR is injured worker-focused, addressing the symptoms to allow a safe, healthy, and functional return to work (Glass, 2017). When the UR process works as anticipated, injured workers' medical treatment reflects improved outcomes, decreased risk for harm to the injured worker, and cost containment.

**Theoretical Framework**

**Deming’s Theoretical Model of Quality Improvement**

Deming's model of quality improvement (QI) is the theoretical framework for this quality improvement project. W. Edwards Deming was a physicist and an expert in quality improvement. As a quality consultant, he assisted Japanese companies in achieving exceptional quality in their productivity and product quality (Marjoua, 2012). Deming identified that for continuous improvement, management was responsible for embracing and implementing the progress throughout the organization (Anderson, 1994).

Deming believed quality is essential for business (Caldwell, 2021). His fourteen points are considered guidelines or recommendations for consistent quality improvement and apply to manufacturing, service industries, healthcare, and organizations of all sizes (Anderson, 1994). Within the 14 points, Demings indicated the importance of improving constantly and forever. Focus on continuous quality improvements at the beginning stage and institute training and retraining on the job. Staff training and placement are developed, focusing on their skill set. Staff
Utilization of Evidence Based Guidelines

will not teach one another to prevent passing on bad habits. Training to continue while indication supports it is helpful, or circumstances determine the need (Anderson, 2018). Training for the project intervention will be necessary by coaching and developing the nurses' proficiency in evidence-based guidelines.

Using Deming’s model within healthcare allows for a short cycle of change with a small number of participants with fast completion and implementation (Connelly, 2021). Before beginning the project, three questions are asked: 1.) What is attempting to be accomplished? To have the nurses approve previously identified treatment requests submitted to peer review within evidence-based guidelines. 2). How will it be determined when a change is an improvement? The completed treatment requests will be reviewed weekly to determine whether the nurses approved or submitted the identified treatment requests for peer review. 3). What change can be made that will result in an improvement? The utilization review nurses will receive additional training on evidence-based guidelines associated with the identified treatment requests previously submitted for peer review. (Connelly, 2021).

The value of the PDCA process provides quick learning of what works best within the work setting and adjusting actions based on the collected data (Connelly, 2021). Continuous learning is built into the PDCA cycle, allowing new intervention modifications as further information is collected and reviewed (Connelly, 2021).

Deming’s PDCA model is used in research conducted by Moser (2020). The study focused on using a quality improvement process to improve the workflow for screening, brief intervention, and referral to treatment integration (SBIRT). The process improvement utilized four PDCA cycles over ten weeks.
Moser (2020) indicated that the PDCA cycle assisted in creating an improved understanding of the significance of improvement related to the changes implemented during the PDCA cycles. The outcomes of using the PDCA cycles were a reduction of 21.5% in the frequency of barriers to the SBIRT process, a reduction in non-value-added activities in the SBIRT workflow, reduced bottlenecks, and an increase of 21.12% in inpatient receipt of SBIRT.

Moser (2020) indicated the quality improvement process implemented from the beginning to monitor and test the process before implementation through the facility. The PDCA process allowed for data-driven decision-making on the change before a process became embedded into the system.
Demings created the Plan Do Check Act (PDCA) cycle based on previous works of Walter A. Shewhart (Anderson, 2018). The PDCA processes provide a systemic approach to quality improvement, focusing on assessment, planning, acting, monitoring, evaluating, reassessment, and acting again (Anderson, 2018).

Using Deming’s PDCA model will assist in analyzing and identifying the frequent medical treatment requests submitted to peer review for authorization versus the nurse providing authorization. According to Connelly (2021), the PDCA cycle begins with the change plan. A sample of the treatment requests for epidural steroid injections was reviewed, determining the
number authorized by nurses and how many were submitted to peer review for authorization. The following action from the data collected is to reassess and evaluate the rationale and refine the intervention for the PDCA cycle. The information supports the adjustment of interventions, and the sampling of treatment requests will increase for the next PCDA cycle if required. (Connelly, 2021).

**Methods**

**Project Design & Settings**

This quality improvement study is a quasi-experimental project design that examined the changes in utilization review nurses' proficiency in applying evidence-based guidelines and clinical judgment to epidural steroid injection treatment requests versus peer review submission during three months. The epidural steroid injection treatment requests were reviewed from June 2022 thru December 2022 to obtain the number of epidural steroid injections approved by the UR nurse versus approval per peer review as the baseline pre-training data. There was a repeated measurement of the number of UR nurse approvals to peer review approvals weekly following individual training and group training for three months.

The study occurred at TheZenith Insurance Company, a private worker's compensation insurance carrier. A worker's compensation carrier provides medical coverage to people injured during their work duties or who become ill associated with their job. Medical providers delivering care to injured workers submit a request for authorization (RFA) to provide treatment to injured workers. Because California is a mandatory utilization review state, the utilization review department reviews each request for medical treatment to determine approval or submit to peer review for possible denial of treatment per evidence-based guidelines.
Population & Sample

The participants for this project were seven UR nurses employed with TheZenith. The UR nurses are full-time work-from-home employees in California, South Carolina, and Florida. Each participant received an email invitation to explain the project in writing and the link to the self-assessment proficiency questionnaire. The completion of the questionnaire implied consent to participate in the study. However, employees were informed that their participation in the project would not impact their employment, and responses to questionnaires would not be linked to them individually or used in subsequent employment evaluations.

The self-assessment proficiency questionnaire asked the nurse to provide their demographics, degree level, years as a nurse and years of performing utilization review. Based on Patricia Benner's definitions, the nurses were asked to self-determine their experience level (Brenner, 1982). The proficiency self-assessment established the nurse's baseline experience assessment for using evidence-based guidelines before implementing training and following training. The nurse's pre- and post-responses were compared to determine whether the nurses continued to identify with the initial self-assessment. (See Appendix A1)

Information from the completed self-assessment questionnaire indicated six UR nurses held a Bachelor of Science in Nursing, and one held a Master of Science in Nursing. The nurses had approximately three to more than ten years of experience in utilization review. Their previous clinical experience included medical-surgical, intensive care, critical care, neonatal intensive care, and orthopedic nursing. All seven UR nurses indicated their experience level as proficient per Benner’s definitions, pre and post-implementation of training. The UR nurse completes approximately 17-25 treatment requests per day for workers’ compensation-related
treatments, such as epidural steroid injections for low back pain, total knee replacement, arthroscopic rotator cuff repairs, and daily physical and occupational therapy and medications.

**Measurement**

ReviewStat database provided the number of epidural steroid injection treatment requests. The information reflected whether the UR nurse applied evidence-based guidelines to epidural steroid injection requests, approved the treatment request, or submitted it to peer review and received the approval per evidence-based guidelines from peer review.

**Table 1 Identified variables and method of measurement**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>How measured</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses use evidence-based guidelines for treatment authorization</td>
<td>Review the treatment request citation area for the supporting guideline to approve the treatment request. (Yes/No)</td>
</tr>
<tr>
<td>Nurses submit the treatment request to peer review for authorization. Guidelines were not cited.</td>
<td>Review the treatment request citation area for the rationale for submitting the treatment request to peer review. (Yes/No)</td>
</tr>
<tr>
<td>Peer Reviewer provides authorization per evidence-based guidelines</td>
<td>Review the treatment request citation area to determine whether the peer reviewer used evidence-based or other clinical guidelines unavailable to the nurse. (Yes/No)</td>
</tr>
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</table>

**Procedures**

The utilization review repository, ReviewStat, was utilized to obtain information regarding the treatment requests submitted to peer review receiving approvals. The treatment requests from June 2022 thru December 2022 were reviewed within ReviewStat. The treatment requests were separated into categories per injured body part using an Excel spreadsheet. Next, the treatment requests were divided into the type of treatment requested, i.e., the low back is the body part category, the treatment requested is an epidural steroid injection, the knee is the body part, and the treatment requested is arthroscopic meniscus repair. The treatment requests were
counted and reviewed to determine the most frequent requests submitted to utilization review. The most frequently identified category was pain management, body part low back, and treatment was injection therapy. The epidural steroid injection was noted to be the most commonly requested injection therapy treatment for low back pain.

Each completed treatment request within ReviewStat has information regarding the name of the nurse who completed the treatment request, the decision to approve or submit the treatment request to peer review, and the rationale for why the treatment request was submitted to peer review. The medical documentation for epidural steroid injections approved by peer review was reviewed and compared to evidence-based guidelines to determine whether the medical documentation reviewed supported the approval by the nurse or was appropriately submitted for peer review. The citation section of the treatment request was examined to determine whether the nurse reviewed and documented the proper evidence-based guidelines for the treatment request.

The requests receiving approval from peer review were analyzed for the evidenced-based guidelines applied to authorize the treatment request. If the peer reviewer used the identical guideline available to the UR nurse, this treatment request would be selected as a case study for training to determine areas where the nurses require additional training on applying evidence-based guidelines for epidural steroid injections.

The treatment requests for nurse approval and peer review approval from June 2022 thru December 2022 were counted to identify the number of epidural steroid injections the UR nurse approved compared to the number of epidural steroid injections within evidence-based guidelines approved by peer review. The quantity of epidural steroid injections counter between
June 2022 and December 2022 identified the pre-training volume and the target decrease goal of ten percent peer submissions over the next six months.

During January and February 2023, weekly review within ReviewStat was conducted to identify epidural steroid injection treatment requests submitted to peer review; receiving approval was used to facilitate one-to-one discussions with the UR nurses. The talks were aimed at understanding the nurse’s reason for the peer review submission and discussed the peer reviewer’s rationale for approval with the nurse.

During March and April 2023, weekly group training sessions were scheduled to review case studies and discuss whether the UR nurse could approve the treatment request or did peer review approve the treatment request. The following week after each training session, ReviewStat was monitored for the number of treatment requests approved by the nurse versus the submission to peer review to identify if there was a decrease in the submission for epidural steroid injections to peer review.

The timeline for this study was approximately three months. The project began in January 2023 and was completed in April 2023. The pre-training treatment requests and medical records submitted to peer review were examined to determine whether the medical information provided was consistent with evidence-based guidelines. Once the epidural steroid injection was identified as the treatment requests frequently submitted to peer review receiving approval were identified, the treatment requests were re-examined to determine if the pre-training treatment requests were consistent with evidence-based guidelines. A set of questions was developed to discuss with the utilization review nurses to explore their rationale for submitting to peer review, their confidence level in applying the evidence-based guidelines for approval, and whether there were any fears of providing approvals. The epidural steroid injection treatment requests submitted to peer review
were utilized for case studies as examples in discussion with the nurses. The purpose of the case studies was to have the nurses review the evidence-based guidelines and medical documents to discuss the rationale for peer review submission. Using case studies to educate and train proficient nurses is preferred (Benner, 2018).

Each case study was developed using PowerPoint and included a synopsis of the injured worker’s demographics, mechanism of injury, accepted injured body part, any underlying comorbid conditions, health history, current treatment, and past treatment associated with the injury. The demographics in the case studies were used to review and compare to the requirements identified in the guidelines to determine whether this request could receive first-level approval by a nurse or submission to peer review. The evidence-based guidelines for the epidural steroid injection were obtained from the California Medical Treatment Schedule and the Official Disability Guidelines. The evidence-based guidelines were utilized to discuss the purpose of the epidural steroid injection, the patient criteria for the treatment, and the criteria for approving the requested treatment.

All identifiable information to associate the individual UR nurse with a case study was deleted during the development of the case study.

Training

PDCA Cycle 1

A Microsoft Teams meeting with the utilization review nurses was scheduled to discuss the project, the peer approval findings, and how to implement change in the decision-making strategies for treatment requests.

Individual meetings were scheduled with each nurse to discuss an epidural steroid injection treatment request submitted for peer review the prior week. The peer reviewer’s
rationale and the guidelines were reviewed with the nurse. The nurse was questioned about their thought process while reviewing the treatment request. Was the treatment request submitted to peer review per the request of the claims examiner? Whether the nurse had a large volume of treatment requests that day, and what was the main reason the nurse would send the request to peer review versus approving the request?

PDCA Cycle 2

The group training sessions consisted of one-hour sessions over four weeks. The purpose of the training was to review case studies and discuss strategies for using clinical judgment and evidence-based guidelines to authorize an epidural steroid injection versus submission to peer review if the request was within evidence-based guidelines. Using a flipped classroom method, the nurses received a case study of peer-reviewed or nurse-approved epidural steroid injection treatment requests and supporting documentation for review in preparation for the discussion (Elmaadaway, 2018). The nurses were provided the case studies before the scheduled meeting to allow an entire hour to discuss the case study. The weekly follow-up scheduled training session reviewed the purpose of the epidural steroid injection, the patient's criteria for the treatment, and the criteria for usage of the requested treatment. The training reviewed the submitted medical information to compare it with the patient standards for treatment noted in the guidelines.

The answers from the case study training sessions with the nurses were analyzed to determine the rationale for not using evidence-based guidelines and clinical judgment to authorize selected treatment requests.

After the initial group training session, the completed treatment requests within ReviewStat were reviewed weekly to evaluate the effectiveness of the training. When a treatment request for an epidural steroid injection was identified for peer review submission, the nurses
documented rationale was reviewed. The claims management file was examined to determine if a specific request was made for the treatment request to be submitted for peer review by the claims examiner. If there was no claim examiner’s request, time was scheduled with the nurse to discuss their rationale and thought process for the peer review submission. The nurse was provided the training case studies for re-review, and a scheduled 1:1 discussion utilizing the evidence-based guidelines occurred to determine the root cause of the submission to peer review. The need for an additional PDCA cycle was not identified.

**Implementation**

The UR nurses received additional training on the purpose of an epidural steroid injection, the patient criteria for the treatment, and the criteria for the epidural steroid injection meeting the requirements for approval. The nurses also received training on what was considered outside the guidelines to prevent first-level authorization from the training sessions. Following the four-week training sessions, the changes were implemented for authorizing epidural steroid injections using evidenced-based guidelines and clinical judgment.

The completed treatment requests within ReviewStat were examined weekly for the next two weeks following the training sessions to determine if the UR nurses approved epidural steroid injections previously submitted to peer review or continued submitting the treatment requests for peer review. The training was successful as the UR nurses provided appropriate approvals per evidence-based guidelines and clinical judgment to the epidural steroid injection requests versus peer review submissions.

The nurses were requested to complete the self-assessment proficiency questionnaire within two weeks following the group training sessions to determine if they had a different concept of their experience level using evidence-based guidelines and clinical judgment. A post-
implementation meeting will be scheduled using Microsoft Teams with the Zenith medical
director, VP of medical management, project mentor, and utilization review nurses. The
discussion and PowerPoint presentation will focus on the original findings, the training
presented, and the outcome of first-level approval compared to peer review submissions.

**Analysis**

The evaluation of the training was conducted over three months. The effectiveness of the
training was evaluated weekly to determine the increase in UR nurse approval and the decrease
in peer review submission for epidural steroid injections receiving approval determinations.
A chi-squared test measured the independent variables for the nurse approvals and the
submission to peer review approvals. The chi-squared test determined whether there was a
significant difference in the proportion of the appropriately processed epidural treatment request
before and after the training. The pre and post-intervention data will be maintained in SPSS
version 27 software. The software will be used to store and analyze the data. The software will
assist in determining weekly averages pre and post-intervention implementation.

**Ethical Considerations**

The study was a quality improvement project and did not meet the definition of human
subject research. Patient privacy was maintained within TheZenith’s utilization software,
ReviewStat; all utilization review nurses, the project lead, and the project mentor have specific
passwords to ReviewStat and are authorized employees of TheZenith Insurance. The project lead
and the project mentor will access the treatment requests used in the project. All project data will
reside on a secured server with password access. No personal information associated with the
injured workers was shared all HIPPA guidelines were followed.
Results

A chi-squared test was used to test whether the nurse approvals were less than the peer review approvals for epidural steroid injection treatment requests. The test indicated that the UR nurses approved epidural steroid injection treatment requests significantly more often than peer reviewers. $X^2(2, \ N=463) = 5.8814, \ p=0.0528289$. The chi-squared outcome contradicts the initial hypothesis of the number of nurses' submissions for epidural steroid injection treatment requests versus the number approved by peer review. (Refer to Chart 1)

**Chart 1**

![Chart](image)

The utilization review nurses following the last group training in April reflects a 91% approval of epidural steroid injections at the nurse level and a 9% peer review approval, indicating a decrease in the submission of epidural steroid injection treatment requests to peer review receiving authorization.
When the nurses were questioned why treatment requests were submitted to peer review meeting evidence-based guidelines, some nurses responded it was related to the request of the claim examiner as a part of the file management strategy. Another nurse said, “I thought the peer reviewer would deny the epidural steroid injection because the only diagnostic test was five years old. I thought the peer reviewer would indicate that updated diagnostics were required.” The nurse was concerned there was no current diagnostic test to review the pathology of the patient’s back. Another nurse commented, “The requesting provider had not examined the patient for the past six office visits. I thought the peer reviewer would deny the epidural steroid injection and recommend the patient have a face-to-face physical examination” The nurse was concerned about the lack of current objective findings due to not having physical examinations. And finally, some nurses identified they were on the fence about approving the epidural steroid injection but decided to send it to peer review to make the determination.

**Discussion**

The results indicated that UR nurses approve significantly more epidural steroid injections than submitting the request for peer review approval. The study identified the UR nurse's rationale for epidural steroid injection treatment requests submitted for peer review was not associated with the understanding and application of evidence-based guidelines but with the advocation for the patient. The UR nurses reviewed the medical file holistically and demonstrated a concern for the patient and potentially poor outcomes following the epidural steroid injection. The claims examiner’s file management strategy was also identified for the epidural steroid injection submission to peer review. Finally, there were occurrences when the UR nurse hesitated to approve the epidural steroid injection and submitted the request to peer review for determination.
The results exceeded my expectations by indicating increased nurse approvals of epidural steroid injections post-group training sessions. The UR nurses approved 91% of the epidural steroid treatment requests and submitted only 9% of the requests to peer review receiving approvals. Within the group training sessions, alternative strategies were identified to support the nurse's approval. The nurses acknowledged understanding the peer reviewer can only review the medical information submitted and does not have the same vested interest as the UR nurse. However, the UR nurse could include additional information regarding the nurse's concern and rationale for the peer review submission. Suppose the claim examiner’s strategy is to submit the epidural steroid injection for peer review. In that case, the UR nurse should take the time to discuss with the claim examiner whether the requested epidural steroid injection is consistent with evidence-based and would be approved by peer review to support the nurse's approval. If the UR nurse hesitates to approve the epidural steroid injection within guidelines, seek additional resources, such as a colleague or nurse manager, to review and discuss the treatment request openly. A second opinion on the treatment request would provide confidence for the final determination.

The quality improvement study revealed a relationship between the UR nurse's advocation for the patients, wanting positive outcomes for the patients, and the purpose of utilization review preventing injury to the patient, determination of medical necessity, and oversight of resource utilization.

Unfortunately, research has not focused on the UR nurse and applying evidence-based guidelines for approving treatment requests within Workman’s Compensation. This study may become the beginning of additional quality improvement studies for utilization review nurses practicing in Workman Compensation.
Limitations

There were four main limitations identified during the quality improvement study.

- **Time:** California has a jurisdictional time limit of five business days for providing the determination for an epidural steroid injection treatment request to the requesting provider and patient. Carving out weekly one-hour training sessions is a business disruption. If the UR nurse expects to complete 17 to 25 overall treatment requests daily, the time away from the desk can increase anxiety and distract the nurse from training information.

  Additional time is needed to be able to complete a comparison of the pre-training data for epidural steroid injection treatment to post-training data.

- **Small Sample Size:** The sample size was limited to seven UR nurses employed with TheZenith and was not a complete representation of all UR nurses and the process for completing first and second-level utilization review.

- **Control of the number of epidural steroid injection treatment requests submitted to utilization review:** There is no method to determine the number of epidural steroid treatment requests or any treatment requests submitted for utilization on a day-by-day basis. The treatment request is dependent on the treatment plan of the physician.

- **All UR nurses identified their experience level as proficient in the self-assessment questionnaire.** Further studying should be done to determine why there was not a variation in the levels of experience.
Conclusion

This quality improvement study aimed to identify why UR nurses submitted some epidural steroid injection treatment requests per evidence-based guidelines to peer review and received approval by peer review using the identical evidence-based guidelines available to the UR nurse. The reasons the UR nurses submitted treatment requests for peer review were unexpected. The nurse’s rationale demonstrated an overall concern for patient safety, cost containment, medical necessity, and potential overutilization of medical resources. It can be concluded the collected data from ReviewStat and the chi-squared test supported that UR nurses were approving more epidural steroid injections than peer review.

Nurses working within Worker’s Compensation or any non-clinical setting are no different than those nurses providing care at the bedside. The UR nurse's virtual patient consists of submitted documentation of health history, current and previous treatment provided, an outcome from the treatment, listing of medications, and diagnostic test reports. The UR nurses demonstrated advocacy and compassion for their virtual patients like a nurse in a clinical setting.

Benefits

There were no physical benefits to participants. However, the information gained from reviewing the evidence-based guidelines for epidural steroid injections may provide additional knowledge to improve the utilization review nurses' ability to use evidence-based guidelines and clinical judgment when approving other future treatment requests.

Costs and Payments

There were no costs or payments to participants associated with this quality improvement study.
Risks

The UR nurse's participation in this quality improvement study was voluntary. However, the UR nurses were informed that their participation in the project would not impact their employment, and responses to questionnaires would not be linked to them individually or used in subsequent employment evaluations.
References


Centers for Medicare & Medicaid Services Glossary (2006)


References

Occupational and Environmental Medicine, 50 (11), 1282-1292. Doi: 10.1097/JOM.0b013e3181841fb4.


Appendix A1

What is your level of education (please select all that apply)?

Associates/diploma
BSN
MSN
DNP/PhD

How many years have you worked in utilization review?

0-5 yrs.
6-10 yrs.
11-15 yrs.
20 yrs. +

How many total years of clinical nursing experience do you have?

Please review Patricia Benner’s (1982) nursing proficiency definitions that best describe your nursing proficiency level (see below for definitions).

Level 1 Novice Nurse
Level 2 Advanced Beginner
Level 3 Competent
Level 4 Proficient
Level 5 Expert

Level 1 Novice Nurse: “Beginners who must depend on rules to guide their actions because they have no experience with the situations in which they are expected to perform. Following rules, however, has limits. No rule can tell novices which tasks are most relevant in real situations nor when to make exceptions.”
Level 2 Advanced beginner: “One who has coped with enough real situations to note (or have them pointed out by a mentor) the recurrent meaningful aspects of situations. An advanced beginner needs help setting priorities since they operate on general guidelines and is only beginning to perceive recurrent meaningful patterns. The advanced beginner cannot identify the most important in complex situations.”

Level 3 Competent: “Typically, the competent nurse has practiced for two to three years. The competent nurse lacks the speed and flexibility of the nurse who has reached a proficient level. The nurse can rely on long-range plans to determine which aspects of a situation are important and which can be ignored. Still, competence is characterized by a feeling of mastery and the ability to cope with and manage many contingencies of clinical nursing.”

Level 4 Proficient: “One who perceives situations as wholes, rather than in terms of aspect. With holistic understanding, decision-making is less labored since the nurse has a perspective on which of the many attributes and aspects present are important. The proficient performer considers fewer options and homes on an accurate problem region.”

Level 5 Expert: The nurse who no longer relies on an analytical principle (rule, guideline, maxim) to connect an understanding of the situation to appropriate action. With an enormous background of experience, the expert nurse has an intuitive grasp of the situation and zeros in on the accurate region of the problem without wasteful consideration of an extensive range of unfruitful possibilities.
### Appendix A2 Pre & Post Implementation Worksheet

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the nurse utilize evidence-based guidelines?</td>
<td></td>
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</tr>
<tr>
<td>ODG</td>
<td></td>
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<tr>
<td>CAMTUS</td>
<td></td>
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<tr>
<td>Clinical Judgment documented</td>
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<tr>
<td>Did Nurse Approve</td>
<td></td>
<td></td>
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<tr>
<td>Treatment request submitted for Peer Review</td>
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<tr>
<td>Nurse documents rationale for Peer submission</td>
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<td></td>
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<tr>
<td>Peer Review Approval</td>
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<td></td>
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<tr>
<td>Evidence-based guidelines used</td>
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<td></td>
</tr>
<tr>
<td>ODG</td>
<td></td>
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<tr>
<td>CAMTUS</td>
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<tr>
<td>Did Peer Deny Treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the nurse have access to the same guidelines?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Were other guidelines cited by peer reviewers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did the nurse utilize evidence-based guidelines?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>