Disorders of the Spine and Nervous System
A Message from the President

Message from the Editor

Information for Authors

Contributors to this Issue

Text Review: Standards of Practice and Methodology in Life Care Planning by Melinda Pearson

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TABLE OF CONTENTS

8  Simplifying the Complex Needs of Spinal Cord Injury Patient Life Care Plans
Marc Orlando, MD

11  Understanding Dementia and Medical-Legal Implications
Sanjay G. Adhia, MD, MRO

21  mTBI and Concussion
Bill Rosen, MD

26  Writing Scholarly Texts Well, Thoroughly, and Easily in 2024
Stephen Axtell

30  A Pain Management Journey for the LCPer
Kate Smith BSN, RN, CNLCP, LCP-C and Jennifer Masse, RN, BSN, MBA, CNLCP, CBIS

DEPARTMENTS

3  A Message from the President

4  Message from the Editor

5  Information for Authors

8  Contributors to this Issue

19  Text Review: Standards of Practice and Methodology in Life Care Planning by Melinda Pearson

AMERICAN ASSOCIATION OF NURSE LIFE CARE PLANNERS
299 S. Main Street #1300-91732
Salt Lake City, UT 94111
PH & FAX: 801.274.1184
aanlcp.org

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A Message from the President

Dear Members, Colleagues and Fellow Nurse Life Care Planners,

I hope this message finds you well as we welcome the spring season!

I’m thrilled to share some highlights from our recent gathering at the 2024 Nuts & Bolts of Life Care Planning Conference in Peachtree City, GA. It was an enriching experience filled with learning, collaboration, and connections.

I want to extend a heartfelt thank you to all the volunteers who dedicated their time and effort to ensure the success of the conference. Andrea Goicoechea, Shaun Server, and their team deserve special recognition for their hard work, as do our speakers and vendors for their valuable contributions.

Our committees have been hard at work, providing regular updates through our newsletters. Your dedication is truly appreciated, and for those interested in getting involved, there are opportunities available on our website and in our publications.

I am delighted to share that the Core Curriculum is now available for pre-order, marking a significant milestone in our collective journey. Additionally, our Scope and Standards of Practice workgroup is diligently working to review and refine our guiding principles, ensuring they remain aligned with our evolving landscape.

It’s an honor to recognize the recipients of the AANLCP awards:

• Becky Czarnick has been honored with the Denise Nelson Ambassador Award for her exceptional dedication to raising awareness of the Association and championing the role of the nurse life care planner. Becky’s commitment to mentoring others, her proactive promotion of nurse life care planning, and her management of the Webinars and Educational Committee are truly commendable.

• Barbara Bate has been honored with the Distinguished Service Award for her remarkable contributions to AANLCP and its members. Barbara’s extensive involvement in AANLCP, her role as co-editor for the Core Curriculum for Nurse Life Care Planners, and her advocacy efforts at various levels reflect her unwavering commitment to our organization.

During our annual meeting on April 5th, we had some exciting news to share. Our membership numbers are at a six-year high. I’m excited about the growth of AANLCP and the fresh branding we’ve adopted. It reflects our organization’s optimism for the future, and I’m eager to share more exciting developments with you all soon!

Thank you for your continued support and enthusiasm. Let’s continue working together to achieve our goals!

Many thanks,
Jessica

Jessica Urie, RN, BSN, CLCP, LCP-C, CNLCP
President, AANLCP | president@aanlcp.org
Something about this Spring feels warmer and brighter than many before. It may be because the first moment it felt like Spring to me was at our Nuts and Bolts of Life Care Planning conference in Georgia, where we saw a wonderful variety of experts speaking. I enjoyed giving my presentation, and as it pertains to helping authors increase their reach, I have included an article version for your enjoyment in this issue.

Unfortunately, I am the only expert who is currently publishing their presentation in a more accessible format, so please join us next year! AI has been the subject of the year. What is it capable of? How should it interact with industries? Can it be trusted? While these questions remain unresolved, caution is the best course of action when new technologies change the game. Considering that, the Journal of Nurse Life Care Planning will not be accepting work that has been principally created by anything that could be described as AI.

The focus of this issue is something that I know causes a lot of concern and anxiety, both for planners and for clients. Which is why I am happy to stand with my invaluable Journal Committee in presenting this issue for your consideration.

We hope you find it as enlightening as we have.

Sincerely,

Stephen Axtell

JNLCP Editor
journal@aanlcp.org
Information for Authors

AANLCP® invites interested nurses and allied professionals to submit article queries or manuscripts that educate and inform the Nurse Life Care Planner about current clinical practice methods, professional development, and the promotion of Nurse Life Care Planning. Submitted material must be original. Manuscripts and queries may be addressed to the Editor. Authors should use the following guidelines for articles to be considered for publication. Please note capitalization of Nurse Life Care Plan, Planning, etc.

Text

- Manuscript length: 1500 – 3000 words
- Use Word® format (.doc, .docx) or Pages (.pages)
- Submit only original manuscript not under consideration by other publications
- Put the title and page number in a header on each page (using the Header feature in Word)
- Place author name, contact information, and article title on a separate title page
- Use APA style (Publication Manual of the American Psychological Assoc. current edition)

Art, Figures, Links

- All photos, figures, and artwork must be in JPG or PDF format (JPG preferred for photos).
- Line art must have a minimum resolution of 1000 dpi, halftone art (photos) a minimum of 300 dpi, and combination art (line-tone) a minimum of 500 dpi.
- Each table, figure, photo, or art must be submitted as a separate file, labeled to match its reference in text, with credits if needed (e.g., Table 1, Common nursing diagnoses in SCI; Figure 3, Time to endpoints by intervention, American Cancer Society, 2019). Graphic elements embedded in a word processing document cannot be used.
- Live links are encouraged. Please include the full URL for each.

Editing and Permissions

- The author must accompany the submission with written release from:
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All accepted manuscripts are subject to editing, which may involve only minor changes of grammar, punctuation, paragraphing, etc. However, some editing may involve condensing or restructuring the narrative. Authors will be notified of extensive editing. Authors will approve the final revision for submission. The author, not the Journal, is responsible for the views and conclusions of a published manuscript.

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All manuscripts published become the property of the Journal. Submission indicates that the author accepts these terms. Queries may be addressed to the care of the Editor at: journal@aanlcp.org

Manuscript Review Process

Submitted articles are peer reviewed by Nurse Life Care Planners with diverse backgrounds in life care planning, case management, rehabilitation, and nursing. Acceptance is based on manuscript content, originality, suitability for the intended audience, relevance to Nurse Life Care Planning, and quality of the submitted material. If you would like to review articles for this journal, please contact the Editor.

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Contributors to this Issue

Marc Orlando, MD
Marc P. Orlando is an American Board of Physical Medicine and Rehabilitation certified physician and member of the Medical Advisory Board of the Mayfield Spine Surgery Center where he shifted his attention after finishing a term as Medical Director of Spine Care at the Trihealth Orthopedic and Spine Institute. He has acted as Physician consultant for hospitals and rehabilitation centers in Ohio.

His specialties include: interventional spinal treatments and therapies, such as transforaminal epidural steroid injections, facet injections, nerve blocks, radiofrequency ablation, spinal cord stimulation; treatment of low back pain, complex regional pain syndrome (CRPS), sacroiliac joint pain, herniated disc, spinal stenosis; nerve block and radiofrequency ablation for hip, knee or sacroiliac joint pain; trigger point and major joint injections.

Sanjay Adhia, MD, MRO
Dr. Adhia is among fewer than 2 dozen Psychiatrists nationally who are triple Board-Certified in Psychiatry, Forensic Psychiatry and Brain Injury Medicine by the ABPN. He assesses emotional distress and mental health injuries as well as brain injury. Triggers considered are personal injury, undue influence, changed competency, medical malpractice, physical and emotional abuse, violence, and criminal behavior.

Dr. Adhia is an Assistant Professor of Psychiatry at TIRR Memorial Hermann where his clinical focus is treating the neuropsychiatric complications of brain injury, stroke, and spinal cord injury. Previously he served as the Medical Director of PACE Mental Health where he treated those with psychiatric disorders, Opioid Dependence, and other addictions.

Dr. Adhia is experienced in the forensic assessment necessary for a robust report of his findings. He routinely testifies in depositions and at trials. He is available for cases nationally.

Bill Rosen, MD
Dr. Rosen earned his MD degree at St. Louis University School of Medicine and then attended the University of California, Davis for his residency in PM&R. In 2014, he became board-certified in the ‘new’ field of brain injury medicine. However, trauma rehab and acquired brain injuries has been the focus of his entire 36+ year professional career. Since his residency, Dr. Rosen has participated in the medical legal process. His office practice is now closed, as he is retiring from both clinical care and medical legal consulting. Since 2017 he has been involved in research on concussion/mild TBI and this work will continue with the University of Montana, in Missoula and St. Luke’s Rehabilitation Institute in Spokane Washington as he steps away from his clinical work.
Contributors to this Issue

**Stephen Axtell**

Stephen Axtell is the editor of the Journal of Nurse Life Care Planning, professional writing consultant, and educator who specializes in medical and academic writing. He assists in writing ranging from novels to Ph.D. theses.

**Jennifer Masse, RN, BSN, MBA, CNLCP, CBIS**

Jennifer Masse, RN, BSN, MBA, CNLCP, CBIS has been a registered nurse for over 20 years with experience in telemetry, neurosurgical ICU, research, and dialysis. She obtained her MBA and transitioned to a management and strategy/growth position, and after 8 years in the corporate world, decided to step into something new. She entered into the legal arena with Life Care Planning and has found the perfect niche for her skillset.

**Kate Smith BSN, RN, CNLCP, LCP-C**

Kate Smith holds a bachelor of science degree in nursing from the University of Cincinnati. She has been licensed as a registered nurse since 2010, and has worked in the acute hospital setting in the neurosurgical floor and intensive care unit for years before transitioning into outpatient pain management. In 2022, Kate became certified as a nurse life care planner, and is the owner of KLS Life Care Planning, LLC. She has a passion for traumatic brain injury and spinal cord injury, developing life care plans and medical cost projections for both plaintiff and defense.

**Melinda Pearson, LMSW, CLCP**

Ms. Pearson has been providing rehabilitation services since 1997, when she earned her Master’s in Social Work. For more than 25 years, she has been providing services for people with traumatic brain injuries under the New York State Department of Health TBI Medicaid Waiver Services. This has given Melinda the unique experience of supporting people with disabilities for years beyond leaving the rehabilitation setting. Melinda continues to support injured people in the community and her experience has culminated in the provision of Life Care Plans for plaintiff and defense attorneys.

Melinda has been providing life care plans and medical cost projections for Promedica Verity Group, now The Verity Group, since December 2021. She is a licensed Social Worker and she is board certified through the International Commission of Health Care Certification as a Life Care Planner since 2019. She studied Life Care Planning with FIG in North Carolina. In 1992, she earned her bachelor’s in psychology from Loyola Marymount University, Los Angeles. In 1996, she earned her Master of Social Work from Yeshiva University’s Wurzweiler School of Social Work in New York City. She is a member of the Association of Nurse Life Care Planners, and National Association of Social Workers.
Worldwide, 250,000 to 500,000 patients suffer a spinal cord injury (SCI) each year. In the United States, 17,000 new cases of spinal cord injury occur annually, and almost 300,000 people in the United States are living with a spinal cord injury. Up to 90% of cases of spinal cord injury in the United States are traumatic in nature, approximately 38% from motor vehicle accidents, 30% due to falls, 13% due to violence, and 9% due to sports injuries. Non-traumatic spinal cord injury appears to be a growing percentage of spinal cord injuries in the United States. Example causes of non-traumatic SCI include spine tumors, fluid-filled cavities, syringomyelia, infections, ischemia, and electrocution.

Spinal cord injury diagnosis, treatment, and outcomes have become more predictable based on knowledge of whether the injury is a complete or incomplete injury, and then using the American Spinal Injury Association (ASIA) Impairment Scale to describe a person’s functional impairment. SCI traumatic injuries predominantly occur in the male population.
and, of course, are extremely costly as the majority of patients are under the age of 30. This leads to numerous risks, complications, and increased morbidity and mortality related to their diagnosis. It is estimated that a lifetime economic impact of 2 to 4 billion dollars for spinal cord injury patients. This is not only in terms of medical costs but also costs associated with decreased workforce production. Variability and costs related to spinal cord injury initial care and lifetime care and treatment are intricately related to community-based acute treatment facilities, rehabilitation facilities, and subacute skilled nursing facility care in combination with outpatient long-term care supportive occupational therapy, physical therapy, recreational therapy, speech therapy, vocational rehabilitation, and mental health care.

In this short article, we will not have time to discuss all phases and considerations for spinal cord injury life care plan assessments, but the list below is a representative list of standard, usual, and customary treatments to consider in your life care plan.

The most common complications of spinal cord injuries are urinary tract infections, associated treatments for neurogenic bladder, neurogenic bowel, pressure ulcers, deep vein thrombosis/pulmonary embolus, autonomic dysreflexia, chronic pain, and spasticity.

Considerations for treatment recommendations should include ongoing medical care. Typically, primary care visits for complex patients such as those with spinal cord injuries would necessitate at least one, if not two, extra visits per year. Physiatrists are most commonly associated with rehabilitation needs regarding therapy prescriptions, spasticity treatment and management, splinting, and durable medical equipment. Sometimes neurologists will substitute for this role, based on community resources for the treatment of spinal cord injury patients. Expectations for PMR/Neurology visits per year would be in the neighborhood of four to six visits per year initially and then two to four visits per year lifelong. Pain management, especially if it involves narcotic medications, would include urine drug screens in line with state law guidelines related to prescription pickup. Orthopedic monitoring for overuse syndrome, especially in paraplegics or low-level tetraplegics, as well as assessments for contractures, possible tendon lengthening procedures in combination with serial casting, and even treatments of heterotopic ossification, should be considered. Plastic surgery and wound care specialties for the care of decubitus ulcers are likely to be needed over the course of a spinal cord injury patient’s lifetime. Pulmonology needs, especially if there has been a high-level cervical injury, and/or ventilator-dependent issues during hospital stay including pneumonia, pulmonary embolus, etc. should be instituted into a treatment plan including pulmonary function test, cardiopulmonary rehab, and consideration for appropriateness of sleep studies. GI-related issues are less common, but consideration of yearly visits for neurogenic bowel should be made. Urologists are integral in the treatment of neurogenic bladder including treatment of frequent urinary tract infections, instruction in intermittent straight catheterization, Foley bag management and/or suprapubic tube recommendations. More recently bladder stimulators and Botox bladder injections are being employed as treatment options for neurogenic bladder conditions in SCI patients. The majority of spinal cord injury patients dealing with a change in lifestyle and chronic pain issues would benefit from psychiatric evaluation and ongoing counseling therapies over their lifetime. If traumatic brain injury is in association with spinal cord injury, consideration of neuropsychological evaluations to better manage medication treatment options and cognitive barriers is paramount in these combined injury patients. Rheumatologic considerations for the management of osteoporosis on a yearly basis, including DEXA scans every two years, are common suggestions for a life care plan. Podiatric visits every 10-12 weeks for routine foot care are also essential.

Surgeries and procedures are not as consistent and easy to predict. Intrathecal pumps for spasticity management are likely the most common surgical procedure in combination with revision of surgical hardware placed at the site of spinal cord injury. If large decubitus ulcers occur, consideration of diverting colostomy and ileostomy tubes must be considered. It is not uncommon for Botox injections and/or surgical tendon lengthening procedures in patients with severe contractures that may have occurred in the early days of rehabilitation and are now hindering the long-term success of patients with spinal cord injuries who are experiencing neurologic recovery.

Therapeutic evaluations and modalities that are commonplace in spinal cord injury patients include neuropsychological evaluations as listed above, physical therapy, occupational therapy, and speech therapy for cognition and speech in the event that traumatic brain injury is also associated or if this is a high-up spinal cord injury case. Considerations for respiratory therapy, recreational therapy, vocational therapy, as well as assistive technologies and driving assessments, should also be included in a routine spinal cord injury life care plan.

Consideration for routine x-rays of the instrumented spinal area involved in the injury, as well as MRIs on a frequent basis prescribed by treating spine surgeons, would be considered routine. There is an occasional need for CT scans of the head secondary to falls, EMGs for overuse injuries of the upper extremities, and bone density scans on a two-year basis. P. r.n. Venous Dopplers for swelling and occasionally as needed to rule out DVT as a routine cause of peripheral edema are also common studies. KUB, renal ultrasound including urodynamic studies as appropriate. Pulmonary function tests and sleep studies are also rather routine.
Lab work would be associated with medications that have a high incidence of injury to either the liver or kidney. Sedimentation rates in the face of ongoing infection, osteomyelitis or decubitus ulcers, and frequent UA C&S for urinary tract infections are most common.

Medications often include analgesics, anti-inflammatories, antidepressants/anti-anxiety, antipsychotic, gastrointestinal-related, urological-related, sexual performance-related, nutritional, and vitamin supplements. This is, of course, in addition to normal and usual flu and pneumococcal vaccination.

Medical supplies and durable medical equipment should consider things like dressing supplies, ointments, creams, bowel, and bladder medical treatments as well as cleanup-related items like gloves, Chucks pads, wipes, etc. Equipment in the home, including a shower chair, handheld shower with anti-scald valve, elevated toilet seats, grab bars, appropriateness of bed and mattress, patient lifts, standing frames, and clothing alterations should be considered, as well as any appropriate orthotic or prosthetic needs for contracture management or pressure ulcer relief. Mobility care needs are more straightforward and can be as simple as a cane or rolling walker with a lightweight manual wheelchair to the complexities of a power tilt and space wheelchair with abilities to climb and negotiate stairs as well as rough terrain.

Home care and living arrangements will be dependent on family/patient intentions, insurance as well as the medical requirements and desires of treatment providers. This may include family care, home health aides, certified nurse assistants, LPNs or RNs, Please consider state regulatory guidelines as it relates to what activities a home health aide can perform versus an LPN/RN when it comes to injectable items, catheterization, and bowel programs.

Home modifications are commonplace as the majority of spinal cord injury patients do not live in ADA-accessible handicapped housing arrangements. Consideration of the VA Modification Loan amount for modifications to the standard home should be considered if your home modification list is extensive. Sometimes a spinal cord injury patient coming from an affluent environment with an above-average income may necessitate a contractor evaluating the house to make appropriate recommendations that would be in excess of the VA typical modification allotment.

Finally, transportation should be considered including things like travel to and from doctor's appointments, the need for handicap accessible, or modifications to a vehicle for driving for all spinal cord injury patients. Nurse case managers, in combination with support groups for the patient and family members, are critical to long-term success. Do not forget about the importance of recreational activities and be sure to support a return to hobbies and lifestyles that were pre-existing to the spinal cord injury as often it is these little things that mean the most to our spinal cord injury patients.
Why Should You Learn About Dementia?

More Dementia, More Competency-Related Litigation

Dementia-related litigation may well grow to reflect the population of the United States with age-related cognitive impairment.

Keywords: 1. Dementia, 2. Neurocognition, 3. Expert Testimony

NURSING DIAGNOSES TO CONSIDER NANDA-I 2021-2023

Decreased Activity Tolerance. Insufficient endurance to complete required or desired daily activities.

Chronic Confusion. Irreversible, progressive, insidious disturbances of consciousness, attention, cognition, and perception, which last more than 3 months.

Impaired Mood Regulation. A mental state characterized by shifts in mood or affect and which is comprised of a constellation of affective, cognitive, somatic, and/or physiologic manifestations varying from mild to severe.
Aging of America: Baby Boomers

Americans Vulnerable to Age-Related Dementia

- **Over Age 40.** Half of Americans are over the age of 38 (census.gov.) Life expectancy and population bulges mean a large population is over 70 years old.

- **Life expectancy is 80.** Age-related Dementia is reflected among those approaching the later decades of an 80 year old+ life expectancy.

- **6.5 million Americans are living with Dementia.** It is predicted the number in the US will likely double in coming decades. In addition, 55 million are living with Dementia worldwide and that number is expected to triple in the next 25 years.

- **Baby Boomers are 62-73 years old as of 2024.** The baby boom generation, defined as those born between 1946 and 1964 (Merriam Webster) are in the riskiest time of life for age-related diseases.

Legal Implications

- **Documenting a diagnosis of Dementia.** A visit to the doctor is the first line of defense in a medical diagnosis. Older Americans understandably have more doctor visits as they develop age-related diseases. This means more opportunities for a healthcare provider to note Dementia symptoms. If the population overall is any indication, we can expect Dementia diagnoses in larger numbers than has been the case in many years. This does not mean we should assume impairment or diminished cognition just because of a person's age. There is no substitute for a close review of medical records and the observations of an evaluator's doctors.

- **Impact of Treatment.** Better treatment for cognitive decline may change the face of competency despite a Dementia diagnosis. Measuring cognition is a matter for the experts who are likely neuropsychologists and specialists in brain function including in the performance of Activities of Daily Living (ADLs)-see below.

- **Documenting for the Trier of Fact.** A Forensic Psychiatrist or Psychologist views a diagnosis in the context of the legal challenges. This medicolegal perspective is not the mandate of a clinical psychiatrist who is treating and alleviating symptoms. Medical records review has unique meaning for a forensically-trained expert witness.

- **6.5 Million Americans are Making Life-Changing Day-to-Day Decisions.** 6.5 million+ people are developing impairments due to Dementias. Some have no conservator or other legally authorized decision-maker and if their Dementia is advanced they may still be making financial and estate planning decisions for themselves that can ultimately lead to lawsuits.

Dis/Proving Dementia

Dementia is generally established by a diagnosis from a doctor. We know that age-related diseases send senior Americans to the doctor for a variety of reasons. This is also where symptoms of Dementia are observed, diagnosed and documented. The testimony of physician expert witnesses with access to medical records can be a powerful tool for the trier of fact.

Competency and Lucidity

A diagnosis of Dementia opens up the door to questions of competency in any facet of conducting day-to-day transactions and big financial decisions.

I think we can agree that in a legal transaction, it’s important to know if the parties are thinking clearly and understand the benefits and consequences of their actions.

Evidence

A Dementia diagnosis can be a pivotal evidentiary point

- Testamentary Capacity
- Undue Influence
- Financial Fraud

Criminal court is now a venue for discussion of dementia, sadly. Elder abuse in the form of fraudulent scams have shed new light on the role of dementia, Alzheimer's and other degenerative and age-related cognitive decline and vulnerability. Proving the presence or absence of Dementia and other cognitive defects might shift the pivot of a case or direction towards settlement or trial.

What Does “Dementia” Mean?

Dementia is formally known as a “Neurocognitive Disorder,” or NCD. It is described by the CDC as a “general term for the impaired ability to remember, think, or make decisions that interferes with doing everyday activities.” [1]

Diagnosing and Stages of Dementia

Dementia has a variety of stages, from Mild to Major. [2] Dementia itself is not a disease, but rather a broad term that encompasses several conditions, including Alzheimer’s disease.

There are distinct elements to the stages and diagnoses of Dementia [3]. For example, Mild Cognitive Impairment [4] is the transition from normal aging to more serious decline into Dementia.

Disease of the Elderly

Dementia is usually seen in older people. However, while some elderly people may have mild age-related cognitive decline, most do not develop Dementia. This is not to say
that young people never develop Dementia, but the reasons are usually different and not as common.

**Thinking Clearly**

Regardless of the age of a person with Dementia, this serious condition can impact a person's ability to make important decisions that require clarity of thought. Arguably, a person is impaired if they no longer can lucidly think through the benefits and consequences of a decision.

**Informed Decisions, Dementia and Competency**

If a person with Dementia is making a will or trust, selling real estate or a business, or making gifts of money, art or other tangible items, the potential legal consequences are troubling. Signing or revoking a financial power of attorney are also acts that require competency, as is signing or revoking a medical power of attorney, sometimes called a “living will.”

Assessing if Dementia is or is not present is a job for a physician qualified to assess neurocognitive disorders.

Everyone, including doctors, are alerted by signs and symptoms that raise the possibility Dementia is present.

**Signs and Symptoms**

Dementia involves problems with memory, attention, communication, reasoning and visual perception. Signs of Dementia may include.

- Getting lost in a familiar neighborhood
- Forgetting the name of someone close
- Forgetting cherished memories
- Losing the ability to complete tasks independently, such as activities of daily living (ADLs) or instrumental activities of daily living (IADLs)
- Confusion that is out of character
- Personality or behavior changes
- Apathy and withdrawal
- Depression
- Paranoia
- Difficulty with balance, walking and eating
- Incontinence
- Communication impairments, struggling with word choice, changed mastery of vocabulary, aphasia (loss of ability to understand or express speech)

---

**Figure 1: Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL)**
How we cope with a daily routine of tasks can change when Dementia is present. This figure illustrates the differences between ADLs and IADLs. Dementia can impact both. Difficulty carrying out ADLs or IADLs may be an alert that a physician should assess if Dementia is present or in the early stages. Dementia can be severely disabling when people cannot perform the basic tasks of life, from bathing to paying bills. Fig. 1 [5]

Causes of Dementia

There are many disorders and conditions that result in the loss or damage of neurons and their connections in the brain, leading to Dementia.

This table contains some of the most common causes or features of conditions associated with Dementia, such as Alzheimer’s Disease, Lewy Body Dementia, Stroke (Vascular Dementia), Parkinson's Disease, TBI, and others.

<table>
<thead>
<tr>
<th>Cause</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimer’s Disease</td>
<td>Most common cause of Dementia (60–80% of all cases). Symptoms include initial loss of recent memory, later loss of remote memory, and eventual personality changes and difficulty with walking and talking.</td>
</tr>
<tr>
<td>Vascular Dementia</td>
<td>10% of Dementia cases are caused by strokes or other vascular problems. Progresses in a stepwise fashion with sudden drops in functioning.</td>
</tr>
<tr>
<td>Parkinson’s Disease</td>
<td>Parkinson’s Disease Dementia and Lewy Body Dementia result in memory deficits. There may also be movement or balance problems such as stiffness or trembling. Additional symptoms may include changes in alertness, visual hallucinations, and insomnia.</td>
</tr>
<tr>
<td>Fronto-temporal Dementia (FTD)</td>
<td>There often are prominent changes in personality and behavior leading to impaired judgment and inappropriate behavior. Problems with language skills may also be present.</td>
</tr>
<tr>
<td>Mixed Dementia</td>
<td>Some people with Dementia who are typically 80 or over may have a combination of conditions causing their Dementia, such as concurrent Alzheimer's disease and Vascular Dementia.</td>
</tr>
<tr>
<td>Reversible Causes [6]</td>
<td>Dementia can be due to a reversible cause such as medication side effects, increased brain pressure, thyroid hormone abnormality, subdural hematoma, brain cancer, infections, poisoning, normal-pressure hydrocephalus, anoxia, or vitamin deficiency.</td>
</tr>
<tr>
<td>Other Causes</td>
<td>Other causes of Dementia may include Traumatic Brain Injury (TBI), Huntington’s disease and Creutzfeldt-Jakob disease. TBI and mTBI (mild TBI, i.e., concussions) can lead to Dementia. We see this in sports injuries like repeated concussions in boxers or football players.</td>
</tr>
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</table>

Diagnosis

Diagnosing Dementia involves a clinical exam with a history and physical along with a mental status exam. The workup may also include labs, neuroimaging (such as an MRI [7]) and neuropsychological testing.

Who is Qualified to Diagnose Dementia?

Psychiatrists, neurologists, geriatricians and physical medicine and rehabilitation (PMR) doctors are the specialists who generally diagnose Dementia. Neuroradiologists can assist with the diagnosis. Some symptoms raise an “index of suspicion” that Dementia may be present. Generally, any physician who observes possible symptom(s) of Dementia will refer the patient to a medical specialist in neurocognitive conditions like Dementia.

Psych Testing

Neuropsychological tests administered by a qualified licensed neuropsychologist can be helpful to the physician in diagnosing Dementia.
Screening for Dementia
Many physicians, myself included, are trained and certified to perform the Montreal Cognitive Assessment (MoCA), a frontline screening test. The MoCA is a cognitive screening test designed to detect mild cognitive impairment (MCI) and Alzheimer's disease. Administering the MoCA is a decision for a neuropsychologist or physician certified to do so. A MoCA is not indicated in every case. It is worth noting that neuropsychological testing or neuroimaging in and of itself may not be sufficient to render a diagnosis.

Delirium vs. Dementia
It is important to be able to distinguish Delirium from Dementia. Delirium is generally caused by a medical condition or toxicity. Often, they can co-occur. Generally, Delirium is characterized by:
- Acute onset
- Fluctuating course
- Altered consciousness

Typically, Dementia has a more gradual onset and progressive course and is usually with intact consciousness.

Treatment
Treatment for Dementia depends on the cause. Some causes, like Alzheimer's Disease, have no cure, but there are treatments that can modestly improve cognition in some individuals or slow the rate of decline.

Additionally, there are medications that can be useful in protecting the brain or helping with mood or behavioral disturbances.

Maintaining a healthy lifestyle with diet and exercise and maintaining social contacts can be preventive.

Medication
Certain medications, both prescribed and over-the-counter, can complicate or worsen Dementia. Impairment in cognition, for example, can co-occur with the use of certain prescription or over-the-counter medications, such as oral antihistamines like Benadryl (with anti-cholinergic activity) [8]. Caregivers need to be aware of these concerns.

Legal Considerations | Medical-Legal Perspective
Dementia can impact a variety of cognitive domains and other abilities. It may result in changes in competency or behavior.

People of all ages are used to making decisions, presumably informed and logical.

Decision-Making
If Dementia in any way impairs a person’s competency, the Trier of Fact is better able to make a judgment when a medical forensic evaluation has determined if a Neurocognitive Disorder like Dementia is or was a factor in decision-making with a variety of medical-legal consequences.

Malpractice and Medical Negligence
Standard of Care in Institutions / Assisted Living / Nursing Homes / Hospitals
Many individuals with Dementia choose to live in an institutional setting such as assisted living. Others must do so due to an inability to fully care for themselves such as living in nursing homes, hospitals or geriatric psychiatric facilities where there could be instances of medical malpractice or negligence in providing the appropriate standard of care.

Self-Advocacy in Health and Lifestyle Decisions
In fact, Dementia can interfere with a person’s ability to assess their own medical care and/or report malpractice or negligence. In advanced Dementia, self-advocacy is unlikely if not impossible.

Negligence
Negligence can be intentional or unintentional. It is not always malicious, though it can be. Negligence is not limited to medical treatment. Those with Dementia may also have a higher risk of falls due to multiple reasons, including getting lost or the effects of medications. Some cognitive impairments affect balance. Staff in facilities caring for those with Dementia will benefit from training about such risks.

Home Caregivers
Others are at home with a caregiver who may be a family member or retained through an agency. Caregivers may not have adequate medical training. Caregivers may also be trained nursing aides or, less frequently, registered nurses.

Disability: Impact on Life and Work
Those with Dementia may have decreased ability to perform work-related duties. A Fitness for Duty or other occupational evaluation may be appropriate in such a situation.

Many jobs require appropriate behavior and interpersonal functioning, which may be problematic with those with Dementia. Additionally, adequate memory is necessary for many essential job functions, i.e. fundamental tasks to perform one’s job.

Some of the moderate and severe cases of Dementia involve individuals who have decreased ability to perform
activities we take for granted. The chart above does an excellent job of demonstrating activities of daily living that can be diminished by Dementia, ranging from basic hygiene to balancing a checkbook.

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Contractual Competency
Individuals with Dementia may lack capacity to execute contracts, which could include:

- irrevocable or revocable trust
- irrevocable or revocable trust
- life insurance trust (irrevocable)
- sale of an asset including deeds
- purchase of an asset
- power of attorney
- obtaining a loan or refinance on real property

Testamentary Capacity
Assessing Competency to Sign a Will
Those with Dementia may not be able to understand the prerequisite elements of a will.[9] Similarly, they may have Dementia but because of its mild or moderate severity they may still be competent to consider a Will and plans to bequeath their estate.

A testamentary capacity assessment of a living person can occur when they are about to sign a will or trust.

In many will-contest cases, the individual in question is deceased. When the estate is being distributed, unexpected bequests may lead beneficiaries to wonder if the testator (person making the will) was competent when they signed the document.

Assessing a Decedent’s Capacity Retrospectively
To determine testamentary capacity after death requires some detective work to opine on the person’s mental state in the past.

If an autopsy is ordered, the deceased’s brain and other findings may provide clues about Dementia or other neurocognitive disorders.

In addition, a close review of medical records and collateral interviews with the deceased’s treating physicians, family, friends or caregivers are a consideration for the forensic evaluator.

As a Forensic Psychiatrist, I also scrutinize the observations of anyone who benefits emotionally or financially.

Undue Influence and Dementia
Does Dementia Make a Person More Vulnerable?

Those with Dementia are emotionally and cognitively susceptible to undue influence. Undue influence is often litigated with questions of testamentary capacity.

Probate litigation may address a range of behaviors by the testator that give rise to the legal conflict. The behavior of others around the testator may also be relevant to the extent they appear to manipulate or control the testator with Dementia.

Just because a person has Dementia does not mean they will be unduly influenced for someone else’s gain. However, it is a risk factor.

Undue influence is complex. Psychological and medical factors are usually at play, and a detailed discussion is outside the scope of this article.

Fraud
Scams can seek to exploit diminished cognitive capacity in the elderly. Above I identify several ways in which Dementia can manifest. For example, “Confusion that is out of character” may cause a person to believe an unlikely “story” that involves transferring money to someone they do not know. Another form of fraud is manipulating a person to sell or give away their assets in an uncharacteristic manner. This does not have to be a family member, though that may be the case.
The capacity for self-advocacy and critical thinking is crucial to defend against fraud.

**Elder Abuse**
Those with dementia could be susceptible to elder abuse. Elder abuse can involve physical abuse, psychological abuse, sexual abuse, financial exploitation, medication abuse, passive or active neglect.

**Crime**

**Competency to Stand Trial, Criminal Culpability**
Dementia may influence alleged criminal acts or lead to incompetency to stand trial. It is important to remember that Dementia is not only seen in the elderly. Brain injuries are believed to be associated with early onset Dementia, for example. As a result, it is possible Dementia is a factor in competency to stand trial or culpability.

Unlike some cases of incompetency due to schizophrenia, those with Dementia are generally more likely to be unrestorable (e.g., treatment will not restore them to be competent to stand trial). Dementia may provide the basis for an insanity defense or sentence mitigation. In some states, such as Texas, a forensic certification in psychiatry or psychology is required to opine in Insanity or Competency to Stand Trial cases. Geriatric psychiatrists and neurologists without forensic certification would not be permitted in some states to opine on these questions.

**How to Choose the Right Expert Witness About Dementia**

**Case-Specific Questions**
In choosing an expert witness for cases involving Dementia, take note of the expert’s background and qualifications about the issues in your case. At the time of retaining an expert, before incurring costs, proactively avoid having your expert disqualified due to a lack of expertise about the subject. Dementia and brain injuries and diseases fall under specialty training and experience.

**Applicable Board-Certification**
It may appear logical to an attorney with a case involving claims of Dementia to consider an expert in Dementia-related medical specializations. Note that diagnosis and treatment is the training of those Board-Certified in specializations such as geriatric medicine, Neurology, Internal Medicine, Psychiatry and others.

**Treatment and Forensic Experience**
However, in treatment-focused medical specializations, no training is received in medico-legal considerations. This can have consequences in a lawsuit.

Training in medical diagnosis and treatment does not include application to medico-legal considerations. As a result, a physician may arrive at a diagnostically sound opinion that is not helpful to a jury considering a legal matter with complex and unique features and consequences.

Forensic Psychiatry is the only medical specialization that addresses the interface of psychiatry and law, e.g., interpreting and opining about complex medical-legal features relevant in a lawsuit.

A doctor Board-Certified in Forensic Psychiatry with further subspecialty certification in brain diseases, i.e., Brain Injury Medicine, may be a better expert witness than a physician with other specializations.

If more than one physician in complementary specialties best serves a jury or judge, a team of a Forensic Psychiatrist and another specialist may be indicated, depending on the complexity of the case.

**Neurology / Forensic Psychiatry**
Although neurologists are adept at treating Dementia and the neurological causes of Dementia, they may not have the experience to evaluate the psychiatric complications of Dementia, which can have the types of medical-legal implications described in this article.

As a Forensic Psychiatrist Board-Certified in Brain Injury Medicine, I regularly treat both the psychiatric and neurocognitive manifestations of Dementia due to TBI, stroke and other neurological conditions. In addition to NCD due to TBI, which is of more immediate onset, TBI can elevate the risk of developing Alzheimer’s disease years after the brain injury. My patients at TIRR Memorial Hermann include individuals who may have developed an NCD after, for example:

- A severe blow to the head, such as in a car accident or fall. Traumatic brain injury can occur.
- A stroke that could result in a Vascular Dementia.
- Repeated concussions (mTBI) like those suffered by an athlete in a sport where brain injuries are a significant risk. This is described by some as causing Chronic Traumatic Encephalopathy (CTE), though research is inconclusive.

In summary, it would be advisable to retain an expert who has both medical-legal expertise in conducting IMEs, such as a Board-Certified Forensic Psychiatrist, and experience in treating those with Dementia. Testamentary capacity and Undue Influence are legal concepts with unique features relevant in a lawsuit but not in treatment.
Conclusion

Dementia is a neurocognitive disorder that can profoundly impact a person's quality of life, independence, and ability to make decisions. Scientists and doctors continue to research the causes and risks of Dementia to help discover effective ways to treat and prevent it.

As competency is a feature of many adjudicated matters, Dementia has numerous medical-legal implications. If Dementia is a possible factor in a case, the Trier of Fact may wish to have this assessed with a forensic evaluation conducted by a qualified physician.

REFERENCES

I encourage readers to learn more about Dementia. Here are some sources you may find interesting. This is not an endorsement of the sources' validity.

9. The term “testamentary capacity” is often used in connection with the signing of a will. In fact, a will may not be the guiding instrument to distribute a person’s estate. The term “testamentary capacity” is used here to generally describe questions of competency that apply to estate planning decisions.

These sites provide statistics and information about Dementia worldwide and in the United States. We have not conducted a thorough peer-review of these sources but hope the reader will find them interesting reading on the subject of Dementia and its impact on society, mortality and prevalence.

1 in 3 Seniors dies with Alzheimer’s or another Dementia. Alzheimer’s and Dementia: Translational Research and Clinical Interventions Journal (TRCI)


Originally published at: https://forensicpsychiatrynow.com/understanding-dementia-and-medical-legal-implications/
The book, “Life Care Planning and Case Management Across the Lifespan” edited by Tanya Rutherford-Owen, Mary Barros-Bialey and Roger O. Weed, aligns with the methodology forensic life care planners use. Starting with the layout of the book which is divided into four parts:

- Part One: Historical, Methodological, and Professional Issues and Research in Life Care Planning.
- Part Two: Life Care Planning Across the Lifespan
- Part Three: The Transdisciplinary Team
- Part Four: Selected Diagnoses, Forensic, Legal, and Other Issues.

The book’s first chapter outlines the standards of practice in addition to consensus and majority statements in Appendix B. This foundation is crucial in our roles. It provides readily available information to serve both the people we work for and when preparing for depositions and trials.

Since receiving this book, I have opened it several times. It is a complete resource that life care planners can rely on for daily work. The first chapter focuses on the history of life care planning, methodology, and the standards of practice (SOP), among other subjects such as research, credentialing, ethics, and multicultural and cross-cultural considerations. I find that re-reading and understanding the principles provides a sense of confidence and deepens my knowledge and ability to convey this clearly, which will prove beneficial when engaging in forensic work. I appreciate the connection between the definition of life care planning, methodology, and the SOP’s. The text follows a progression from the qualifications of a life care planner and standards of training, to standards of practice leading to the planning process, and methodology. As stated in the book, “The standards of practice are the ‘how’ guidelines of life care planning.” Last, familiarity with the consensus and majority statements is essential to supporting the finished product and the professional foundation.

The definition of a life care plan is: a dynamic document based upon published standards of practice, comprehensive assessment, data analysis, and research, which provides an organized concise plan for current and future needs with associated costs, for individuals who have experienced catastrophic injury who have chronic health care needs.

Ultimately, the goal is to provide medically necessary future medical needs for the person the life care plan serves. The methodology and standards of practice (SOP) are critical for the profession and in determining evaluatees’ needs.

The methodology is analogous to the scientific method. A life care planner will use these steps and may circle back to re-check consistency and justification. For example, after creating the chronology and starting the research and data, a life care planner may circle back to reviewing the medical records to ensure the data analysis is supported and that there is a foundation for the recommendations to report the findings:

1. Identify the purpose of the life care plan
2. Review secondary data and conceptualize case
3. Collect primary data
4. Research and data analysis
5. Report findings
6. Re-evaluation

The Standards of Practice describe the process followed in life care planning methodology. The life care planner demonstrates compliance with the SOPs and maintains a level of competence.

1. The life care planner facilitates understanding of the life care planning process
2. The life care planner establishes working expectations with referring party
3. The life care planner performs comprehensive assessment through the process of data collection involving multiple elements and sources
4. The life care planner analyzes data using a consistent, valid, and reliable process
Review of Life Care Planning and Case Management Across the Lifespan; fifth edition.  
continued

5. The life care planner uses a consistent, valid, and reliable approach to determining evaluator's needs

6. The life care planner seeks collaboration

7. The life care planner facilitates understanding of the life care planning process

8. The life care planner uses a consistent, valid and reliable approach to costs

9. The life care planner communicates their opinions

10. The life care planner ensures that opinions and work product are congruent, consistent, and follow accepted methodological practices

11. The life care planner, as an educator, facilitates understanding of the life care planning process, the life care plan, and work product

12. The life care planner may engage in forensic applications

It is also important to be familiar with the Consensus and Majority Statements laid out in the first chapter. “Consensus allows for a group approach with multiple experts sharing ideas to form consensus on topics ranging from appropriateness of procedures to research agenda development.” (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4405502/). The consensus statement is periodically reviewed.

This book is a valuable resource for Life Care planners to consider adding to their shelves.

As nurses, retirement planning can be daunting and complex, with numerous factors to consider. At The K M Walker Insurance Agency, we have a wealth of experience in navigating these complexities, enabling us to provide tailored guidance for nurses looking to secure their financial future.

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Over the last decade, there has been a flood of information in the field of traumatic brain injury, and coinciding with this flood, a new subspecialty in medicine has been established, Brain Injury Medicine (BIM). Keeping abreast of these changes in brain injury survivor management is challenging and having a subspecialty that addresses this condition is a valued step forward. However, the concussed or mild traumatic brain injury (mTBI) patient population remains somewhat of an enigma for many who evaluate and treat them.

A concussion and an mTBI are synonymous and are the most common type of acquired brain injury. The CDC estimates that there are over 1.5 million mTBIs per year in the United States. However, the actual incidence may be more than twice that number as many such injuries do not present in hospital emergency rooms (ERs) and thus are not counted. Moreover, it is known that ERs are notorious for underdiagnosing concussions/mTBIs (Powell et al. and Pozzato et al.). Increasing the confusion of this condition, the incidence of residual impairment following mTBIs is unknown. Similarly, predicting adverse outcomes is difficult. There are likely many reasons, aside from being involved in litigation, to account for this variability, including, but not limited to, the mechanism of injury, the energy involved, and force vector direction, as well as things like age, sex, education level, genetics, prior medical history, and cognitive reserve all influence outcomes. Additionally, the location of possible pathology is infinite. As a result, some residual injuries may be relatively inconsequential, while others can have considerable effects. Also problematic, there are many who still believe, despite contradictory evidence, that concussions/mTBIs are fully recoverable. All these issues make the job of the life care planner quite challenging in mTBI cases.

BIM physicians recognize an acquired brain injury as the most complex disease process involving the most complicated organ system in the human body. Mild TBIs are no exception to this observation. Conservatively, the cortex of the brain is comprised of more than 85 billion neurons and at least an equal number of supporting glial cells. When a brain is traumatically injured, a variable array of pathology arises within this complex network of cells. There can be areas of dysfunction, which may arise from direct pathway interruption, or impedance of normal network transmission from either upstream or downstream cellular damage. With mTBIs, a loss of normal connectivity within this complex network of cells occurs which is ultimately responsible for the symptoms and signs of neurological compromise. This neurological sequelae may be temporary, permanent, or a combination of the two. The residual deficits are thought to be non-focal, as they do not represent a discrete lesion in the brain, but rather a change in connectivity. Some areas of the brain appear to be more susceptible to concussive injuries than others, however, a great variety of outcomes is possible. Thus, no two brain injuries are exactly alike.

Keywords: 1. Residual, 2. TBI, 3. Concussion

Nursing Diagnoses to Consider
NANDA-I 2021-2023

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Deficient Knowledge. Absence of cognitive information related to a specific topic, or its acquisition.

Fatigue. An overwhelming sustained sense of exhaustion and decreased capacity for physical and mental work at the usual level.

NURSING DIAGNOSES TO CONSIDER
NANDA-I 2021-2023

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Because no two people will have the same network of cell damage and even if they did, how they respond to that damage may be quite different. Residual impairments are due to a diffuse area of network transmission malfunctioning, rather than a specific lesion causing pathway disruption. As an analogy, a freeway is going from four lanes to two, rather than a complete detour. Complicating this further, there is no accepted standardized physical exam for detecting the non-focal lesions in this patient population. This results in many clinicians offering a diagnosis based on subjective impressions, rather than objective data. All this variability adds to the difficulty in diagnosing and in directing treatment as well as formulating prognostic impressions in survivors. This uncertainty leads to difficulties in medico-legal dispute resolution, making the job of the life care planner that much more difficult.

Acutely, traumatic brain injuries are categorized as mild, moderate, or severe, primarily based on the patient’s initial Glasgow Coma Scale score. The GCS is a numeric score from 3-15, with a severe brain injury scoring between 3-8, a moderate injury is 9-12 and a mTBI is a score of 13-15. A frequent misnomer is to consider a 15 as a normal score.

Regarding mTBIs, any loss of consciousness for less than 30 minutes, amnesia for less than one day, or a change in mental status with any evidence of focal neurologic dysfunction, is considered a mTBI. The VA/DoD definition of a mTBI also includes normal structural imaging if such studies are performed (O’Neil et al.) Importantly, if a lesion is seen on radiographic imaging, the injury is either moderate or severe. The problem with the working definition of a mTBI is that subconcussive blows (injuries due to a bump, or jolt to the head that does not cause symptoms) can result in abnormal neurological functioning on either a transient or permanent basis (Beisser et al. and Kuzminski et al.). Such injuries are not considered a concussions, yet these events lead to cellular impairment and potential secondary consequences.

Currently, a concussion requires either a change in mentation or a loss of consciousness (LOC), or amnesia. Some individuals experience all three of these neurological sequelae and others, some combination of the three. A LOC occurs when someone is ‘knocked out” and totally unresponsive. Amnesia is the inability to lay down memory, yet someone who is amnestic may appear responsive to bystanders and may even appear or state that they are not injured. More typically, amnestic patients appear confused and may be perseverative or agitated. Some individuals may have episodic memories of the events surrounding their injury and over the first few hours or day(s) after their injury. The ability of the concussed individual to distinguish between whether they were unconscious or amnestic is not possible, however, they may be able to recognize that they had a lapse in their ability to recall events, if asked in
an appropriate fashion. Simply asking them if they were knocked out is usually insufficient. When the injury causes an alteration in mental status, the ability to recognize one’s change in neurological functioning may not consistently be possible. Often individuals who experience neurologic changes from subconcussive blows, do not recognize their deficits or are unsure if they are present. This lack of deficit awareness can also occur after a brief LOC or amnestic episode and is referred to as anosognosia. This can lead to frequent errors in diagnosis, especially when the patient is felt to be a reliable historian. As an example, if they are asked if they were knocked out, they may reply no, while they had a definite lapse in normal cognitive functioning. Relying on a concussed patient’s history is analogous to relying on an alcoholic to describe their activities during a blackout. Concussed individuals should not be relied upon to provide an accurate traumatic history, due to the nature of their injury. They often only recall some circumstances of the event and a more detailed inspection of what they remember reveals substantial gaps in their memory functioning. For instance, in motor vehicle collisions, many individuals don’t recall the physical impact or hearing the collision, while bystanders from more than a block away will recall seeing the crash unfold and hearing the noise of the collision. These lapses in memory identify obvious interrupted cognitive functioning.

Damage from a mTBI can be divided into two categories: the primary injury and the secondary injury(ies). The primary injury refers to the direct traumatic blow that caused the concussion. The secondary injuries are a cascade of events that can take up to several weeks to months or even longer to occur. Secondary injuries arise from a variety of factors. The secondary injury is a complicated affair, and a detailed discussion of this phenomenon is beyond the scope of this article. However, secondary responses result in post-injury damage, after the individual’s initial presentation (citations). These secondary events account for a patient’s worsening over the days and weeks after their initial injury. These changes can even evolve over months or years. The boxer, Muhammad Ali, was never concussed, yet he went on to develop post-traumatic Parkinson’s disease. Another example of this secondary phenomenon is chronic traumatic encephalopathy (CTE). If a clinician states that the natural history of a mTBI is for the initial impairment to be followed by steady improvement to full resolution, they are out of touch with the recent literature on this subject.

Previously, it was thought that most first-time mTBIs have a full to nearly full recovery. However, it is now known that these patients are a heterogeneous group with varying functional outcomes. In high-speed velocity mTBIs, some literature indicates that up to 50% of these patients may still be impaired to some degree at one year(Nelson et al.). In those patients with residual objective deficits 30 days post-injury, their trajectory of improvement over the next year may predict long-term outcomes. It is important to recognize that the high-velocity motor vehicle crash patient is different from the sports concussion patient. Moreover, those patients treated in brain injury clinics, or similar settings, are likely a different patient population than those treated by athletic trainers or primary care/sports medicine physicians. Many of these latter individuals return to full activity in 2-4 weeks post-injury. However even some of these patients may have unrecognized residual impairments (Madhok et al.).

As mTBIs are becoming recognized as more of a physiologic disease process, rather than an anatomical injury, attempts are now being made to diagnose and verify brain damage by the presence of biomarkers. For instance, collecting saliva to detect microribonucleic acids (miRNAs) as a biomarker has shown some promise. However, this assay may be positive for a traumatic cervical myelopathy resulting in a false positive test. Further complicating this issue, cervical and concussive injuries share common symptomology and are often co-morbid conditions. Nevertheless, miRNA research appears to be promising for diagnosing an acute CNS injury but is still experimental and exploratory.

As an mTBI patient heals, recovery and rerouting of neurotransmission pathways around damaged neurons occurs, allowing for a return to a more normalized level of functioning. However, the speed at which this neuronal transmission occurs is now reduced if the pathways have been rerouted. Again, our research using virtual reality (VR) testing on concussed individuals and healthy controls has proven this phenomenon. Given the discrete nature of the concussed cells, a concussive injury should be viewed as more of a physiologic process than a circumscribed anatomical abnormality that can be seen on a diagnostic test. In those with residual deficits, these areas of minute contusion often do not fully heal and/or are not adequately rerouted, such that a return to more normal functioning cannot occur. This lack of a full recovery is evidenced by even those who appear to have fully recovered but still show an increased propensity for additional medical problems and injuries, including such things as an increased risk of seizures, musculoskeletal injuries, especially involving the lower extremities, and an increased risk of subsequent brain injuries. Additionally, as proven by our research on the physical exam (Maxwell et al.) and VR research (Rosen et al. and Rosen, et al.), those who have a near-full recovery often show evidence of hip flexor weakness and processing speed delays, on a range of different tasks. Awareness of such residual deficiencies is not uniformly self-evident.

Traditionally, neuropsychological testing was relied upon to validate and clarify brain injury residual impairments. In fact, some refer to the neuropsychological examination as the “Gold Standard” for mTBI diagnosis. However, for something to be a gold standard, it must be proven that it is replacing the previous best test. This has never been done. Thus, this term of gold standard, when applied to neuropsychological testing, is inaccurate. Furthermore, research over the last ten
years or so has revealed that impaired mTBI survivors are more likely to have objective residual abnormalities in vision, vestibular, motor, and balance functioning, compared to cognitive deficits, as may be defined by neuropsychological testing. As a result, relying on neuropsychological testing to determine if someone has residual from a brain injury increases the risk of making a type two error (false negative conclusion).

The degree of impairment an individual mTBI survivor experiences is variable, depending on a range of factors. The more diffuse and/or smaller a residual impairment is, the more likely a fluctuation in performance abilities will occur. Much like many other neurologic conditions, such as multiple sclerosis, Parkinson’s Disease, and incomplete spinal cord injuries, individuals may have good and bad days where their abilities vary. Examples of these negative influences include such things as stress/anxiety, fatigue, prior exertion levels, presence, and degree of a headache and/or other pain generators, and various environmental stresses, such as noise, bright lights, and ‘tumultuous’ settings, such as gatherings, busy shopping areas and the like. Some note having a good day often begets a bad day. Understanding these concerns is necessary when evaluating a TBI survivor and developing a treatment plan.

A thorough evaluation of a mTBI survivor can be a lengthy process. Obtaining an initial history is time-consuming. In addition to the customary data collected during an initial primary care evaluation, the pre-injury status of the individual’s brain health needs to be investigated along with obtaining a history of the event that led to their possible/probable brain injury. Reviewing medical records, both before and after their mTBI should be performed. A detailed history of their current neuromusculoskeletal status, from head to toe, and an assessment of their bowel, bladder, and sexual functioning, along with investigating their sleep habits, cognition, behavior, and mood should be explored. Changes in their functional abilities and socialization habits are also important. Following the history, a physical exam including a mental status assessment, specialized in detecting mild cognitive impairments, should be performed. The St. Louis Mental Status Exam and the Montreal Cognitive Assessment are the preferred screening tools. The Folstein Mini-Mental Exam is inadequate for mTBI screening, and its use is arguably more telling about the examiner’s clinical background than the patient they are examining. Following a cognitive screen, a detailed orthopedic and neurologic examination, that includes an assessment of soft neurological signs, should be performed. Abbreviated assessments can lead to diagnostic omissions. Which in turn leads to an examiner formulating their opinions and conclusions on subjective impressions.

To some clinicians, a cursory neurological exam may look fine, and the patient may be told, “you look fine to me”. In such cases, the field sobriety test, performed by a police officer, who is assessing drug-related impairment, looks at more subtle changes in functioning than the traditional neurologic exam. To date, other than the physical and neurological examination of soft signs (PANESS), no specific physical exam has been shown to have maximum effectiveness in mild TBI (Stephens et al.). The PANESS was established for identifying developmental abnormalities in children and was not designed for evaluating mTBIs. In short, the traditional neurologic exam detects large focal lesions and thus is inadequate in revealing neuronal pathway dysfunction from a mTBI, where non-focal lesions come into play. A thorough exam that looks at soft sign (non-localizing lesions) abnormalities is helpful in establishing objective evidence of residual damage. Without this devotion to detail, the exam becomes imperfect and leads to subjectively based opinions, rather than a diagnosis based on objective facts. We have recently published an abstract introducing the Spokane mTBI exam (SME) (Beisser et al.). Preliminary data reveals great promise in this assessment tool in defining residual abnormalities in the mTBI population, but additional research is needed and ongoing.

A brain injury can affect the health of other organ systems. The cardiovascular system is the most susceptible major organ, outside the nervous system, that experiences changes in function following a CNS injury. Acutely, hypertension, tachycardia, and other inflammatory stressors on the cardiovascular system can occur. Often, acutely, if the patient is seen in the ER, an elevated blood glucose level and white blood cell count may be seen, suggesting an inflammatory reaction is emerging. Long-term, hypertension, heart rate variability, atrial fibrillation, and ventricular tachycardia all can arise after a brain injury. Autonomic changes may also have an impact on cardiac functioning. Other body parts are also susceptible to additional problems as well. For instance, the incidence of lower extremity injuries in athletes who have suffered a concussion is twice the rate experienced by their non-concussed peers (McCann et al.). In our patient population, over the years, a great number of subsequent spinal issues have arisen following a brain injury. Most commonly this involves either axial spine pain and/or discogenic issues. Some of these spinal issues arose at the time of the original injury and others developed later, presumably due to residual neurologic dysfunction. Unfortunately, research on this area of subsequent medical problems is sparse and just recently gained some attention. Other conditions may arise such as sleep apnea or insomnia and in some, pre-existing issues, such as sleep dysfunction and headaches are commonly aggravated by the brain injury. A full analysis of a given patient’s issues deserves to be assessed by a physician with expertise in this complex field and thus, the development of the BIM specialty is a natural evolution of our medical progress.

The life care planner consulting on a mTBI case would be ideally served utilizing a board-certified clinician in BIM as a consultant when authoring an accurate and thorough life
care plan. Whether being retained by the plaintiff or defense, having a solid foundation is the cornerstone of a good life care plan. An mTBI can be a very complicated injury with multiple chronic issues. Having an appropriate physician providing input will be a first step in ensuring accuracy and establishing realistic needs and expectations of the mTBI individual.

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AANLCP JOURNAL OF NURSE LIFE CARE PLANNING

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As the editor of the Journal of Nurse Life Care Planning, I see the amount of effort that all of our authors must go through in order to provide us with their expertise. I, personally and professionally, respect this time and effort. To serve this respect, I created this article to remove some of that time and effort.

The writing process can often be a slog and the process itself is literally as old as history. However, we are lucky enough to live in a time of rapidly advancing technologies. Some of this technology can be used to quickly, easily, and thoroughly complete the writing process. However while implementing technology, the writing process itself still holds a lot of power to help make writing more simple.

Of course, the first technology that must come to mind is AI. AI can do extremely impressive things. An AI that was designed to use a camera to identify bakery items to streamline the bakery’s check-out process. This AI began identifying skin cancer at a staggering rate. This AI is now being developed for medical use across the practice.

Our current models of AI take from millions of samples of text, pictures, and video taken from the internet to generate novel material. (OpenAI, 2023) Which means a few different things:

1) AI does not CREATE anything. It synthesizes extant material to generate novel material.

2) It has a massive “memory” based on the totality of the accessible material which can be instantly accessed. Be aware that this data is limited. As on the writing of this article, ChatGPT’s information is limited to

ChatGPT is extremely effective at synthesizing nearly any kind of text.

Which makes it quite tempting to use AI to short-cut all of our writing. So should we?

It depends on your goals. There are more than a few “authors” on Amazon currently selling books that were created by ChatGPT and similar Large Language Model AIs

Keywords: 1. Writing, 2. Helpful, 3. Editing
based on prompts. I use quotes to refer to these people as intelligently crafting prompts for AI to act on. It has the title “AI prompt engineer.” If these novel-generating prompt engineers are content to express themselves through prompts instead of the complete writing process, that is their creative prerogative.

However, using prompt engineering to write materials that are tied to reputations and rigor is inadvisable:

1) Every creation synthesized by AI is just that: synthesized from other sources. This means that AI effectively “thinks” through plagiarism. This means it is very easy to end up accidentally plagiarizing from a work that you don’t know exists.

2) AI synthesizes from ALL available materials, including from once trusted but now seriously outdated reference materials and writing on the internet. As they exist now may convincingly mimic the mind of a human, but they are not thinking things and they, especially, are not experts.

3) AI is so eager to please that it has been known to create fake information to satisfy the user, as in the case of Michael Cohen who requested cases for use in his legal defense. ChatGPT made up cases and he unwittingly submitted them.

Having said that, using AI to SUPPLEMENT your writing is an effective way to expand your writing abilities. The text that has been fed into the training of models like ChatGPT constitutes literal libraries worth of information and that information can be used to supplement your own writing ability.

**Technology and the Writing Process**

AI and other forms of technology can be effectively used to supplement the writing process at every stage.

**Prewriting**

Even with the addition of technology, the writing process remains the same in the general sense. Prewriting still needs to situate the writing process:

1) Brainstorming
2) Outlining
3) Researching

**Brainstorming.**

When brainstorming a topic, AI can be used for this purpose, however you should always start by asking your colleagues. AI can pretend to understand the desires of the audience you are writing for, but your colleagues will have a much better understanding of what needs better clarification, what needs updating, and what is entirely missing from the literature available on any one topic.

Then, before asking AI, create your own brainstorming sheet or Mind Cloud (a graphic representation of ideas that helps to organize thoughts in a creative way which is free to create on mindclouds.com.) Then ask an AI to brainstorm for you and synthesize the results. From this, you will benefit from all of the creativity and information available.

I tested this myself, using Microsoft’s CoPilot AI. Our upcoming issue focused on ethics in Nurse Life Care Planning is one that I didn’t have a wealth of ideas to suggest to my potential authors. So, I ran a brainstorm in AI:

Nurse life care ethics is a topic that involves the ethical principles and values that guide the practice of nurse life care planning. Nurse life care planning is a process of assessing, planning, implementing, and evaluating the health care needs of individuals with complex, chronic, or catastrophic conditions. Some of the questions that people have asked about nurse life care ethics are:

What are the ethical obligations of nurse life care planners to their clients, colleagues, and profession?

How do nurse life care planners respect the autonomy, beneficence, justice, and non-maleficence of their clients?

What are the ethical challenges and dilemmas that nurse life care planners face in their practice?

How do nurse life care planners use the ANA Code of Ethics for Nurses and the AANLCP Code of Ethics and Conduct to guide their ethical decision-making?

How do nurse life care planners collaborate with other health care professionals and stakeholders in providing ethical and quality care for their clients?

You will notice that, while there is no guarantee that it will reference authoritative sources, the AI referenced two very relevant sources that I could follow up with. It also provided a list of guiding concepts that will help create secondary brainstorming lists.

**Outlining**

Outlining your writing ensures that your ideas retain a flow and that complex ideas are effectively illustrated and explained. It also encourages more engaging and thorough material. AI can help in this too. Again, create your own outline before going to your technological resources. Ask the AI to create a template before asking it to outline your writing. There are templates for everything, they aren’t restricted to intake or insurance forms. All templates serve many of the same functions: completeness, accuracy, and speed. Use these to your advantage to make your writing exceptional.
Researching
Many writing experts recommend researching earlier in the prewriting process, and if you are writing on a topic you are unfamiliar with you should research first. However, if you are an expert, try researching after outlining. Seek research that both undermines and substantiates your pre-research thesis. Then you can ask AI to both support and attack your thesis. When you do this, don’t forget Michael Choen, the research that is presented by AI should be assumed to be false until you can find it elsewhere.

You should also consider joining ResearchGate, the researcher-oriented social media that also features articles for free. The site is still early in its lifespan, so expect changes, but it is an excellent place to engage with other experts.

As a reminder, my article in the Spring edition of last year focused on levels and types of evidence and how to most effectively use each level for particular purposes in writing and analysis.

Notation and Citation
Retaining research for use requires both taking notes and managing your citations. Note-keeping software like Evernote can be extremely helpful. Keeping your notes in one location, one that can be instantly accessed on your phone or computer instantly, allows me to capture every idea and notation that comes to mind as my articles roll around in my mind.

Despite being an editor that works primarily with APA style, I find citation tiresome. Critical, but tiresome. So, I use citation management software. Up until very recently, I used Easybib by Chegg. Their APA citation once only required watching an ad, but it has transitioned to a subscription-only model. $3.99 a month, currently. Grammarly has added citations to its service and is generally a more worthwhile subscription as it also offers spell check and style feedback.

Drafting
It is tempting to use AI to draft the actual text, but beyond the risks posed by false information, there is the possibility of accidental plagiarism. AI is a synthesis of all the information used to create it. The primary purpose is to synthesize something novel, but it is possible for the AI to include exact samples of text from the sources from which it pulls. If you haven’t read the source it is pulling from it is impossible to tell the difference between well-synthesized writing and well-written human writing. Considering the breadth of information AIs have access to, you just can never be sure that this isn’t happening.

When you start to write your first draft, do not stop for anything. Stopping to resolve grammar or spelling mistakes disrupts the flow state (A state of mind in which writing is easiest and most insightful.) Only make grammar and spelling corrections after you have finished the first draft. At this point, if you have a trusted peer review group, which is something I recommend to all of my authors at every level, you should send this early draft to them. It is anxiety-inducing, but feedback in this early form is likely to help you re-conceptualize important and difficult parts of your writing. It is also easier to see problems that make ease-of-understanding difficult for your readers at this stage.

Once you receive your feedback, take time to think about the comments. Not every comment is a winner, even if it comes from the editor. (Though not taking the recommendations of an editor is likely to put the publishability of your piece in jeopardy.) Once again, give yourself some time to consider the work as it stands. Only then make your changes.

Editing
It’s helpful to consider the editing process in two forms: content editing and proofreading. Content editing is the process of improving the concepts, phrasing, and flow of what you have written. Proofreading is editing for spelling, grammar, and guidelines. Always edit for content before proofreading. It is counterproductive to edit the phrasing of a sentence that is going to be deleted in the end.

When content editing, always listen to your writing spoken out loud. For those of us that have internal dialogues, the voice in our mind is good at catching some things and our physical ears are good at catching others. Because I detest having someone read my writing, I use narration software on my phone called Natural Reader to listen to my writing so that the flow remains regular. Both Windows and Macs have built-in narration software. On Windows, press the Windows logo key + Ctrl + Enter to start the narrator. Press the same button combination to stop the narrator. On Macs, press Command+F5.

Once you are proofreading, often the most frustrating element is uniformly applying style guide formats to different elements of writing. Using the “styles” function of your word processor can save and apply formatting settings to text.

First, you have to manually set the formatting to a selection of text. Then select that text.
Move to the style you want to map these settings to and right-click on it. Now you can update it to match your selection, and/or rename it.

Now whenever you select text and click on the style you formatted, it will format the text to the style. It will NOT update capitalization, but otherwise, this process can be used to rapidly standardize your formatting across the entire document and prepare it for submission.

Remember to use even the most advanced technology as a supplement, and not a replacement for, your writing skills and the writing process. AI, like every other form of technology, is a tool to help experts like you. Don’t be afraid to use it to your advantage. Simply keep reasonable restrictions in mind.

REFERENCES


A Pain Management Journey for the LCPer

By: Kate Smith BSN, RN, CNLCP, LCP-C and Jennifer Masse, RN, BSN, MBA, CNLCP, CBIS

Chronic pain is among the most common chronic conditions in the United States and is also frequently addressed when creating life care plans. While there are many approaches to pain management, a common initial approach includes conservative measures. These can include rest, heat, ice, anti-inflammatories, physical therapy, chiropractic, massage, and/or medication (oral and/or topical). When conservative measures provide suboptimal pain relief, injections are a common next step.

There are many types of injections based on the type of pain. For example, epidural steroid injections (“ESIs”) are typically used for chronic pain caused by irritation and inflammation of the spinal nerve roots in the lower back. This type of injection is typically for lumbar radiculopathy (radicular pain), which can radiate down from the lower back to the hips, legs, and/or feet. Epidural steroid injections are among the most common types of therapy for managing radicular pain (Cleveland Clinic, 2024). Epidural steroid

Keywords: 1. Spine, 2. Injections, 3. Pain

NURSING DIAGNOSES TO CONSIDER NANDA-I 2021-2023

Imapired Comfort. Insufficient endurance to complete required or desired daily activities.

Chronic Pain. Unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage (International Association for the Study of Pain); Sudden or slow onset of any intensity from mild to severe, constant or recurring without an anticipated or predictable end, and with a duration of greater than 3 months.

Risk for Post Trauma Syndrome. Susceptible to sustained maladaptive response to a traumatic, overwhelming event, which may compromise health.
injections may be classified by location (cervical, thoracic, or lumbar) and by the path of the needle (interlaminar, transforaminal, or caudal).

Medial branch blocks (“MBBs”), or nerve blocks, can help treat pain as well as diagnose sources of nerve pain, such as the nerve or joint. Sometimes, an anti-inflammatory medication is injected along with the local anesthetic that may allow the damaged nerves to heal by relieving the inflammation and causing longer relief. The effects of a nerve/pain receptor block tend to be temporary and are rarely long-term (if no steroid medication is injected). If the block is successful, then a radiofrequency ablation may be recommended (Mayfield, 2024). You must have a positive medial branch block before moving to a radiofrequency ablation (“RFA”). Per CMS.gov, a second diagnostic facet procedure is considered medically necessary to confirm the validity of the initial diagnostic facet procedure when administered at the same level (Centers for Medicare & Medicaid Services, 2024). An RFA is considered successful if a patient had a minimum of consistent 50% improvement in pain for at least six months or 50% improvement in the ability to perform previously painful movements and ADLs compared to baseline measurement. For each covered spinal region, no more than 2 RFAs will be reimbursed per rolling 12 months. If there is an extended time, two years or more, since the last RFA and/or there is a question as to the source of the recurrent pain, then diagnostic procedures must be repeated (Centers for Medicare & Medicaid Services, 2024). Otherwise, you can go straight to the repeat ablation.

RFAs use radio waves to create a current that heats a small area of nerve tissue. The heat destroys that area of the nerve, stopping it from sending pain signals to your brain. RFA can provide lasting relief for people with chronic pain, especially in the lower back, neck, and arthritic joints.

Facet joint injections are commonly performed to diagnose and manage facet joint pain that can arise from osteoarthritis, segmental instability, trauma, meniscoid impingement, and inflammatory synovitis. This type of pain typically does not radiate. Per CMS.gov, additional facet joint injections are no longer covered unless there is accepted justification in the medical documentation on why an RFA cannot be performed. This has led to a decrease in the number of facet joint injections performed and an increase in the number of medial branch blocks, leading to RFAs.

In the event that the above injections are not effective, additional treatments can include spinal cord stimulation or peripheral nerve stimulation. A spinal cord stimulator is an implanted device that sends low levels of electricity directly into the spinal cord to relieve pain. Peripheral nerve stimulators are seen as a temporary solution, while spinal cord stimulators are for long-term treatment. Peripheral nerve stimulation is a commonly used approach to treat chronic pain and is similar to spinal cord stimulators, except that it sends mild electrical currents directly to nerves outside of the spinal cord. It involves surgery that places a small electrical device next to one of the peripheral nerves. Spinal cord stimulators involve two procedures, including a trial procedure and implantation. Internal batteries are inserted under the skin and last for several years before needing to be replaced.

Please note that different physicians and facilities may vary in their approaches. The frequency of recommendation may also vary based on the physician’s training and methodology. Injections can be performed in hospitals, pain management clinics, and ambulatory surgery centers, with or without oral sedation and/or conscious IV sedation.

Let’s walk through one man’s journey towards effective pain management:

John Doe was involved in a motor vehicle accident, leading him to suffer multiple injuries, including a whiplash-type injury along with a cervical and lumbar sprain/strain. After acute care was rendered, he was referred to pain management. After failing conservative care of medications and therapy, he was recommended a right C3-4, C4-5 epidural steroid injection under fluoroscopy and a bilateral L4-5 transforaminal epidural steroid injection at the local ambulatory surgery center. Since ESIs involving a maximum of two levels in one spinal region are considered medically reasonable and necessary, these two procedures were performed four weeks apart.
After three years of doing RFAs every 6 months with waning efficacy, peripheral nerve stimulation, and spinal cord stimulation were discussed. Mr. Doe opted for peripheral nerve stimulation.

- PNS Implant, 64555, 63661, L8682, L8683, L8680 (2) = $47,209.24

This article serves as an overview and example of the evolution of one patient's pain management journey. Please be cognizant that in the world of pain management, there are multiple techniques, beliefs, modalities, and resources. Never hesitate to call an office for clarification.

- Cervical ESI, right C3-4, C4-5 (two-level), 64479, 64480, J1040 = $7,310.87
- Transforaminal lumbar epidural steroid injection, L4-L5, bilateral, 6483-50, J1030 = $7,162.72

Mr. Doe's cervical ESIs improved his right cervical and radiating arm pain significantly, and his symptoms were to be monitored. He could repeat them as needed, with no more than three injections per year. Unfortunately, the first lumbar injections provided relief for only a few days. After a second repeat bilateral L4-L5 transforaminal ESI with minimal relief was reported, Mr. Doe's physician decided to attempt medial branch blocks ("MBBs") with progression to RFA if successful. He went on to have bilateral L3, L4, and L5 MBBs performed at the ambulatory surgery center. He had great relief after the MBB and went on to his second MBB for diagnostic and insurance purposes and had great relief with the second MBB as well. Several weeks later, he went on to have the bilateral L3, L4, and L5 RFA performed.

- Bilateral lumbar MBB, 3 levels, 64493-50, 64494-50, 64495-50, J2001 (6) = $7,788.25
- Lumbar RFA, 3 levels, bilateral, 64635-50, 64636-50 x2 = $16,682.82

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<table>
<thead>
<tr>
<th>Facility Base plus</th>
<th>LCP Expert</th>
<th>LCP Elite</th>
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<td>APC Packages</td>
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LOOKING AHEAD

2024
Summer: Ethics
Fall: Orthotics
Winter: Foundations in Life Care Planning

2025
Spring: Delegation of Care and Caregivers
Index of Past Issues

all past issues from 2009-present area available as PDFs for free download at www.aanlcp.org

2015
XV.1  Topics in Translation
XV.2  Updates in Spinal Cord Injury
XV.3  Burns
XV.4  Perinatal / Childhood

2016
XVI.1  Pain
XVI.2  GI Issues
XVI.3  International LCP
XVI.4  Home Care

2017
XVII.1  Brain Injury
XVII.2  The Business of Life Care Planning
XVII.3  Back and Spine
XVII.4  Mobility and Extemity Function

2018
XVIII.1  Costing and Coding

2019
XIX.1  Presidents Issue
XIX.2  Licensure I Qualifications I Certifications
XIX.3  New Directions in Pain Management
XIX.4  Technology Updates

2020
XX.1  Spinal Cord Injury Updates
XX.2  Advances in Amputation
XX.3  Evidence Based Practice
XX.4  Durable Medical Equipment and NLCP

2021
XXI.1  Therapeutic Modalities
XXI.2  The Business of NLCP
XXI.3  Ages and Stages in Life Care Planning

2022
XXII.1  Expert Witnessing and Testimony
XXII.2  Pain Management Revisited
XXII.3  Orthopedics, Pain, and Research

2023
XXIII.1  Pediatrics
XXIII.2  Business of Life Care Planning
XXIII.3  Mental Health
XXIII.4  Interacting with Other Disciplines

2024
XXIV.1  Assistive & Durable Medical Equipment
XXIV.2  Nervous and Spinal Injury Considerations