



Resources for Implementing an ICU Musician Program

Over the past 17 years, we have integrated music and medically trained musicians into ICU patient care teams at Beth Israel Medical Center in New York, Berkshire Medical Center in Pittsfield, Massachusetts and the National Institute of Health in Bethesda, Maryland. The goal of our program has been to help the patient and family find *“their individual music prescription.”* Specific goals include helping to *decrease the amount of opiates prescribed for pain, decrease the need for sedatives, and decrease the incidence of ICU delirium.* Additionally, properly trained musicians are very effective in environmental stress reduction and patient-family rituals of coping, grieving and “saying goodbye.” It has been our experience that *mature, established musicians with a large and flexible repertoire and a real interest in the physical, emotional and spiritual issues of ICU patients make the best ICU Medical Musicians.* Further, the success of a programmatic undertaking to integrate music into patient care requires a real “team effort,” to include ongoing dialogue and interactions between nursing staff, physicians and musicians.

An important initial decision about creating a program is whether the organization intends to work with *volunteers* or *paid musicians, certified music practitioners, or music therapists.* While a hospital or ICU may have an individual volunteer or volunteers capable of beginning a program, ICU Medical Musicians are already professionals, and then receive further training to become members of the ICU team. The goals of incorporating musicians into the ICU team are measurable and as such, have measurable value. We recommend that any new program for musicians in the ICU environment be budgeted and have a reasonable expectation of continued long-term funding. Playing for very sick and sometimes disfigured patients in an ICU is very far outside the comfort level of many well-meaning volunteers and amateur musicians, and professional musicians are accustomed to auditioning and professional feedback on performance and efficacy. While it varies geographically, expect to pay your musicians \$80-\$100 per hour.

Where can a musician make a difference in an ICU?

Treatment of pain- Integrating live and recorded “individual music prescriptions” into multimodality treatment lessens opiate dosages, lethargy & dependence.

Help to decrease anxiety, both about pain and other things=> decrease sedation.

Combat confusion & decrease delirium=> re-orient the patient to self/environment rather than sedate.

Uncertainty about illness & life issues=> short & long term, health, financial, family.

Loss of control=> Hard to accept that the illness is in control, not us. Empowering music ritual.

Alleviate Depression=> “Runner’s high effect” for physically limited individuals.

Help to cope with alterations in body image and function

Early mobilization to minimize deconditioning and assist with rehabilitation
Coping with feelings of loneliness and abandonment by family and friends.
Transformation in learning one is not immortal, but most of what one needs in life is more available to us than we often appreciate.
The ritual of saying goodbye

Resources we recommend for ICU teams considering implementing such a program include (quotation marks indicate the text is taken from their websites):

1) Dr. Aniruddh D. Patel PhD's Great Course on "Music and the Brain."

From the website: "Dr. Aniruddh D. Patel is a Professor of Psychology at Tufts University. He received his Ph.D. in Organismic and Evolutionary Biology from Harvard University, where he studied with Edward O. Wilson and Evan Balaban. His research focuses on the cognitive neuroscience of music. Prior to arriving at Tufts, Professor Patel was the Esther J. Burnham Senior Fellow at The Neurosciences Institute, a scientific research organization founded by the late Nobel laureate Gerald M. Edelman. Professor Patel is the author of *Music, Language, and the Brain*, which won a Deems Taylor Award from the American Society of Composers, Authors and Publishers (ASCAP) in 2008. In 2009, he received the Music Has Power Award from the Institute for Music and Neurologic Function in New York City.

Between 2009 and 2011, Professor Patel served as President of the Society for Music Perception and Cognition. He is an active speaker, having given many popular talks as well as scientific lectures. A major contributor to his field, his research has been reported in such publications as *The New York Times*, *New Scientist*, and *Discover* magazine and on National Public Radio. He has appeared in science documentaries, including *The Music Instinct*, which aired on PBS." \$39.95. <https://www.thegreatcourses.com/courses/music-and-the-brain.html>.

Comment: The DVD and accompanying booklet is an engaging and quite painless way for physician and nursing caregivers to be brought up-to-date on contemporary neuromusicology and mind-brain-body studies of music effect.

2) "Andrew and Wendy" 30 minute PBS documentary produced by musician/documentarian Josh Aronson. Aronson Films, 35 East 20th Street, New York, NY 10003 212.253.6941, <http://www.aronsonfilms.com>.

The ICU team at Beth Israel Medical Center in New York had worked with large screen TV's, classical and traditional music videos, and young music therapy trainees for about 6 years. Professional guitarist Andrew Schulman first came to the ICU in cardiac arrest in 2009 after pancreatic surgery. He was pulseless for 17 minutes. Though he was successfully resuscitated and on triple pressors, he appeared to be in "terminal acidosis." His wife asked if she could play "the St. Matthew Passion," his favorite piece of music, into his ear buds. His terminal acidosis and shock immediately began to improve and he recovered from his illness. While he had some neurocognitive dysfunction, he asked if he could return to the ICU to play guitar for other patients and family three times a week, and is still doing so 10 years later.

Documentary filmmaker Josh Aronson distilled 10 hours of interviews and bedside playing into a 30 minute program shown multiple times on PBS-13 in New York City. The film is a good

global introduction to both the idea and the practice of bedside medical music in the ICU. It shows how to introduce the musicians in a busy ICU, how to approach patients and family, and the musician-nursing-physician interactions which are important to enhancing the therapeutic nature of the program.

Individual DVD's are available for \$20 from Aronson films. Showing the program formally to a group requires payment of a \$200 license fee.

3) Medical Music Initiative. Berkshire Medical Center

“The Medical Musician Initiative began presenting summer workshops in July 2017, led by Dr. Marvin A. McMillen and guitarist Andrew Schulman. Our third annual Medical Musician Workshop: Medicine for Musicians will be given at Berkshire Medical Center July 22-26, 2019.

The workshop involves morning lectures given by attending physicians from various medical departments, and hands-on training in the afternoon in the hospital's Critical Care Unit (CCU). In order for a musician to successfully integrate into the medical team of a critical care unit it is vitally important to have a solid familiarity with the day-to-day care that takes place in the unit.”

Medicine for Musicians Course- Integrating Musicians into the Perioperative & ICU Team Lectures:

What is a Medical Musician from an Intensivist's Perspective?

What Is a Medical Musician? A Storyteller-Travel Agent

Intro to Berkshire Medical Center, a 300-bed acute care hospital and trauma center.

How does tissue injury & pain lead to surgical 'stress' & the 'stress response'?

Introduction to The Intensive Care Unit

What is shock, sepsis and multiple organ failure?

Resilience, Empathy and Compassion: Tools for Medical Musicians

Atherosclerosis & its consequences

Body Image, Disfigurement & Uncertainty in Cancer Care

Introduction to the Emergency Department

Life disruption & frustration with trauma; differences between the young and the old

Spiritual rediscovery in the context of serious/critical surgical illness and trauma

Gastrointestinal Surgery for Musicians

Orientation to the Operating Room

Living with chronic heart failure, COPD, kidney failure, stroke and debility

Outcomes tools & studies

What is 'perioperative delirium' and 'ICU Psychosis'?

Music as part of multi-modal pain control in the opiate epidemic

Community Health Initiatives & music's role coping & recovering from serious illness

Department of Surgery Multidisciplinary Patient Care Conference on 3rd & 5th day.

Berkshire Medical Center, a teaching hospital affiliated with the University of Massachusetts Medical School and ranked in the top 5% of hospitals in the U.S., is near some of the great arts centers in the country: Tanglewood - summer home of the Boston Symphony Orchestra, Jacob's Pillow Dance Festival, and Shakespeare & Company, among others.

Medical faculty from Berkshire Medical Center teach the lectures and practicums - Departments of Surgery, Critical Care, Integrative Medicine, Oncology, Colorectal Surgery, Nephrology, Neurology, Psychiatry, and Nursing.” BMC will be glad to help any legitimate educational, music or healthcare organization further develop our curriculum for their own needs.

Contact: Marvin A. McMillen MD, Chief of Perioperative Care, Department of Surgery, Professor of Surgery, University of Massachusetts, 777 North Street, Pittsfield, Massachusetts, 01201, Office phone 413-447-2745, Cell-917-992-0659. Email: mmcmillen@bhs1.org.

4) Institute for Music and Neurologic Function www.imnf.org

Connie Tomaino PhD, One Wartburg Place, Mount Vernon, NY 10552, phone 914-513-5292

“Mission: Through the scientific exploration of music and the brain, the IMNF seeks to establish new knowledge and to develop more effective music therapy treatments to awake, stimulate and heal through the extraordinary power of music.

History: The Institute developed out of the many years of clinical work and research of renowned author and neurologist Oliver Sacks, MD and music therapist Concetta M. Tomaino, DA, MT-BC, who demonstrated that people with neurological problems could learn to move better remember more, and even regain speech when music was used in specific ways. In 1995, under the leadership of Edwin H. Stern III, Arnold H. Goldstein, and the late Ben Rizzi, the Institute for Music and Neurologic Function was founded to pursue this passion, and this mission – to bring together the two worlds of basic neuroscience and clinical music therapy.

Research and Training: Directed by music therapist Concetta M. Tomaino, the IMNF conducts research on the relationship between music and the brain, and offers our professional peers around the world the latest music therapy education and training information about best practices.

Considered a worldwide authority in clinical music therapy research and education, the IMNF offers the following resources:

Expertise in using music therapy to restore, maintain and improve the physical, emotional and neurological functioning of individuals who have suffered a stroke or brain trauma, have Alzheimer’s disease or other forms of dementia, Parkinson’s disease, or other diseases and conditions for which music therapy would be beneficial.

Vast clinical experience applying music therapy techniques to diverse client populations.

Internationally and nationally recognized training programs in music therapy.

The IMNF actively collaborates with leading organizations across the globe to develop and implement the most effective music therapy treatment programs through the methodical use of music, and to advance the understanding of applying the power of music to promote healing and wellness.”

Comment: The IMNF is a bit more Rehabilitation and Outpatient Oriented than the BMC Medical Musician program, but has an extensive background in neurology-related issues. For any ICU with a significant neurology/neurosurgery population, they have a mature and established program to draw from. They are also a significant resource in rehab and recovery issues.

5.) Music for Healing and Transition Program (MHTP)-Certified Music Practitioner (CMP)

“MHTP is one of the first therapeutic music training programs. Established in 1994, the Music for Healing and Transition Program, Inc. (MHTP) is one of the oldest organizations that trains and certifies musicians in the art and science of providing therapeutic music for body, mind, and spirit. MHTP recognizes the transformative power of music as a therapeutic enhancement to the healing process and the life/death transition. MHTP is a not-for-profit 501(c)(3) organization that is funded solely from tuition and donations. <https://www.mhtp.org>.

MHTP graduates, called Certified Music Practitioners (CMP), come from all walks of life. Graduates include: mental healthcare workers, pastors, lawyers, physical therapists, counselors, physicians, teachers, nurses, business executives, medical technologists, computer scientists, professional musicians...

A graduate of MHTP’s extensive, scientifically-based program is called a Certified Music Practitioner (CMP). CMPs provide **live acoustic therapeutic music**, one-on-one, as a service at the bedside of patients, for the purpose of creating a healing environment for the ill and dying. CMPs serve all people regardless of religion, age, race, gender, physical ability, sexual orientation, or ethnicity. CMPs range from professional musicians to healthcare workers who are amateur musicians to simply musicians wishing to be of service. MHTP has always accepted and certified many types of instrumentalists and singers.

Requirements for certification by MHTP include classroom instruction and practical experience. To become a CMP, a student successfully completes:

- Five weekend modules *or* two intensive retreats (covering the equivalent of two modules each) and one weekend, for a total of **80 classroom hours**
- A 45-hour Independent Practicum providing therapeutic playing/singing for approximately 100 individual patients in an approved healthcare setting, with MHTP **Patient Log documentation** of each patient
- Reading of 10 books from MHTP's module reading lists and a brief book review of each
- Development of at least 90 minutes of appropriate repertoire for patient conditions as taught by MHTP
- The MHTP open book Exam
- A Graduation Recording of their playing or singing to demonstrate understanding of the appropriate use of therapeutic music

Comment: The MHTP-CMP program involves both formal education of musicians and mentored playing in different medical environments. It costs \$2400. **MHTP-CMP was created by musicians**, and does not have extensive physician-nursing role in education/clinical interaction. If ICU Medical Music were to go forward as a significant broad effort, collaboration with MHTP would seem like a good idea, with the CMP as a first step and the more intensive “Medical Musician” course as a further credential, or offering current CMP’s further training in ICU medicine. Members of the organization have expressed interest in doing a “Medicine for Musicians” course as an MHTP-sponsored event. Four CMP’s have

already taken the “Medicine for Musicians” course and found the content and experience valuable.

6) American Music Therapy Association

8455 Colesville Road, Suite 1000, Silver Spring MD 20910 **Phone:** 301-589-3300 **Fax:** 301-589-5175 <https://www.musictherapy.org>

“Music Therapy is the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program: **Promote Wellness, Manage Stress, Alleviate Pain, Express Feelings, Enhance Memory, Improve Communication, Promote Physical Rehabilitation.**

Music Therapy is an established health profession in which music is used within a therapeutic relationship to address physical, emotional, cognitive, and social needs of individuals. After assessing the strengths and needs of each client, the qualified music therapist provides the indicated treatment including creating, singing, moving to, and/or listening to music. Through musical involvement in the therapeutic context, clients' abilities are strengthened and transferred to other areas of their lives. Music therapy also provides avenues for communication that can be helpful to those who find it difficult to express themselves in words. Research in music therapy supports its effectiveness in many areas such as: overall physical rehabilitation and facilitating movement, increasing people's motivation to become engaged in their treatment, providing emotional support for clients and their families, and providing an outlet for expression of feelings.”

Comment: Training in music therapy involves a 4-year Baccalaureate program and is taught at about 70 colleges and universities. Music therapy resembles psychotherapy in many ways, using live, recorded and participatory music as therapeutic tools. Music therapists may work in private practice as therapists, in educational, institutional, inpatient or outpatient medical organizations, and rehabilitation and residential centers. Music therapy curriculum requirement is 45% musical foundation, 15% clinical foundation, 15% music therapy, 20-25% general education and 5% electives. One can attain a degree in music therapy with little or no training in science or medicine. (We have encountered music therapists who have presented themselves as qualified to participate in ICU patient care without any scientific/medical training or bedside mentoring.) In a 10-year period working with over 60 young music therapy trainees, many found the ICU very stressful (and in some cases, did not want to do the ICU rotation.) These trainees also needed to learn the clinical language and concepts of the ICU. Addressing these issues was part of the targeting of the course curriculum of the “Medicine for Musicians” course.

“IS A CMP THE SAME AS A MUSIC THERAPIST? **In a word, No!**

The American Music Therapy Association (AMTA) Sourcebook (2004) states, “Music Therapy is an established health care and human service profession using music to improve quality of life by optimizing health and wellness and addressing the needs of children and adults with disabilities or illness. Highly trained and nationally certified music therapists build on inherent qualities of music, using music and music activities in a focused and concentrated manner for healing and change, influencing physical, emotional, cognitive, and social

responses. The profession of music therapy was established in 1950 as a result of work using music with patients in Veterans' Hospitals following World War II.” Go to the AMTA website for more about what music therapy is.

Music therapists, who receive college degrees, often actively engage patients in the music-making process; they have a rehabilitative plan of action and a measurable restorative goal for each music session. Music therapists frequently use recorded music. Further, traditionally trained music therapists do not typically think about the intrinsic healing properties of music. Rather, healing comes from engaging the patient in music and music-making. Early music therapists were ridiculed for claiming that music had healing properties, so the discipline became much more focused on using music clinically for behavior modification (per Prof. Barbara Crowe, Director of Music Therapy at Arizona State University and former President of the National Association for Music Therapy, NAMT).

It is critical that all students of MHTP and CMPs understand and honor this distinction.”

Comment: The philosophical differences between CMP’s and MT’s and their organizations are irrelevant to the bedside care of the ICU patient or the integration of music and musicians into the ICU team. All ICU caregivers share a common goal of adequate training, credentialing, best practices, communication and continuous quality and educational improvement. Any musician or music therapist who is interested in participating in the care of ICU patients must fulfill these expectations, regardless of the goodness of their intentions or the label on their certification or diploma.

7) League of American Orchestras

“The **League of American Orchestras** leads, supports, and champions America’s orchestras and the vitality of the music they perform. Its diverse membership of more than **2,000 organizations and individuals** across North America runs the gamut from world-renowned orchestras to community groups, from summer festivals to student and youth ensembles, from conservatories to libraries, from businesses serving orchestras to individuals who love symphonic music.

The only national organization dedicated solely to the orchestral experience, the League is a nexus of knowledge and innovation, advocacy, and leadership advancement. Its conferences and events, award-winning Symphony magazine, website, and other publications inform people around the world about orchestral activity and developments. Founded in 1942 and chartered by Congress in 1962, the League links a national network of thousands of instrumentalists, conductors, managers and administrators, board members, volunteers, and business partners. Visit **americanorchestras.org**. The League’s **Mission is:** To advance the experience of orchestral music, support the people and organizations that create it, and champion the contributions they make to the health and vibrancy of communities.”

Comment: In discussions with the league’s senior leadership, there is interest in many local orchestras in outreach to medical organizations, and many programs already exist. We recommend any ICU group considering creating a program integrating musicians into the ICU team contact the leadership of the local symphony as you develop your plan.

8) National Institute of Health’s Sound/Health Initiative <https://www.nih.gov/sound-health/research-plan>

“NIH hosted a workshop in January 2017 bringing together neuroscientists, music therapists, and supporters of both biomedical research and the arts to discuss the current landscape of research on the **interaction of music and the brain** as well as **how music is used as therapy**. A set of research priorities and recommendations for basic and applied research were identified that will: increase our understanding of how the brain processes music, develop scientifically based strategies to enhance normal brain development and function, **advance evidence-based music interventions for brain diseases and human health overall**.

NIH is collaborating with other federal agencies to support funding opportunities and programs that study the application of music in health settings. Basic scientists, clinical researchers, musicians, educators, and music therapists will play an integral role in increasing our understanding of how the brain interacts with music, and this understanding is providing a foundation for promoting health and treating disease. To achieve this, Sound Health will focus on the following research: **Translational and Clinical:** Better integrate mechanistic understanding with music therapy approaches, Develop and validate biomarkers for music interventions, Investigate the question of “dosing” in music interventions, explore how music is “special” and develop methods to better understand and predict individual differences in responses to music interventions

Methods and Outcomes: Develop methods to integrate brain-based measurements with musical activities, conduct longitudinal and ancillary studies to assess outcomes of music interventions on timescales matching developmental trajectories, promote more rigorous reporting of interventions, methodologies, and results, Establish standardized and/or personalized outcome measures. **Capacity Building and Infrastructure:** Promote multidisciplinary research and capacity building through networks and collaborative studies involving neuroscientists, music therapists, musicians, and biomedical, behavioral, or social scientists, Support the training of neuroscientists and music therapists interested in basic or clinical research on music and the brain, Establish evidence-based best practices for music interventions intended to enhance wellness or treat/ameliorate specific health conditions.

Comment: While it is unlikely that an institution implementing a new program would initially set up a research arm, modern neuroscience permits far better study of music effect on the brain, and the metabolic and immune/inflammatory processes in critical illness certainly fall within this mandate.

9) The Georgetown Lombardi Arts and Humanities Program of Georgetown University School of Medicine/Medistar Hospital

“The **Georgetown Lombardi Arts & Humanities Program** (AHP) promotes *cura personalis*, or care of the whole person, for MedStar Georgetown University Hospital (MGUH) patients, family members, caregivers, medical staff and visitors through its programs of music, expressive writing, dance and visual arts. These therapeutic art modalities encourage a creative and constructive response to illness. Classes, workshops, bedside visits, exhibitions, environmental enhancements and educational programs contribute to promoting an optimum life experience for those who encounter and interact with the AHP at MGUH.

The AHP is led by these guiding principles: the best patient care begins with the best staff care, artists are valuable members of patient care teams, healthcare professionals need to take time for self-care and a creative healthcare environment benefits all communities involved.

There are amazing benefits to integrating the arts into healthcare. Research indicates that the arts alleviate a wide range of patient symptoms including stress, anxiety, pain and depression, as well as improve staff morale. The past year has been a very exciting one for the AHP as every part of the program is expanding. We are working to increase both knowledge of, and support for, the AHP’s music, dance, expressive writing and visual arts offerings in order to meet the rising demand at MGUH.

Currently, the AHP has five professional musicians-in-residence: Martha Vance, cellist, Anthony Hyatt, violinist, Miriam Gentle, harpist, Tamara Wellons, vocalist and Karen Ashbrook, hammered dulcimer player. The musicians work throughout the hospital, sharing their music with in-patients and out-patients, including those in the intensive care unit, MedStar Cancer Institute, radiology, dialysis and other sites throughout MGUH.

Increasingly, physicians and nurses contact the AHP office to request music for an in-patient. AHP musicians are professionals who know how to read the mood of the patient and play accordingly. AHP musicians-in-residence are trained and practiced at creating a healing sonic environment. The patients, caregivers and visitors aren’t the only ones who benefit from the AHP music program. Physicians, nurses and staff members regularly express their gratitude for the calming music that contributes to their work.”

The AHP was formed about twenty years ago thanks to the generosity of many individuals and private organizations and is able to continue today because of private support. If you are interested in [making a gift](#) to the Georgetown Lombardi Arts and Humanities Program, please contact Faculty Director, Julia Langley directly at (202) 444- 7228 or julia.langley@georgetown.edu.”

Comment: In academic medicine, it may be a first reflex to reach out to the Department of Music at the university with which one is affiliated. We have not yet had much success with this strategy, but the Georgetown Program is long-established and has an excellent, integrated relationship with both its medical school and its hospital.

10) Recorded music Probably the most important single publication on Music and Medicine in the last few years was “**Music as an aid for postoperative recovery in adults: a systematic review and meta-analysis**” by Jenny Hole, Martin Hirsch, Elizabeth Ball and Catherine Meads in Lancet, August 13, 2015. These authors selected the best 73 randomized controlled studies out of 4261 English language titles and found significant reduction in post-operative pain, anxiety and analgesia use and increased patient satisfaction. It is worthwhile to read this paper in detail, particularly as regards to music choice and timing. Live, recorded, personal choice and pre-selected music were used. There was some advantage for personal preference.

As the idea of the use of music in medicine has broadened, patients do sometimes arrive in hospital with their “Personally directed music” or PDM on their iPod or phone. For others, family created iPod downloads may be a gratifying participation in the care of a sick loved one in the ICU. In the creation of a music program for ICU’s, volunteers or music lovers of insufficient personal musical skill to play at the bedside may be interested in programmatically catalyzing PDM’s on phones and iPods, or even teaching families how to create Pandora channels or other digital algorithm-based selections. In an ICU unable to offer a live musician every day, alternating days with volunteers helping develop PDM’s might sustain the effect and program.

11) Live Music Now (<http://www.livemusicnow.org.uk/>) “is a UK-wide initiative, created by Yehudi Menuhin and Ian Stoutzker in 1977. Every year, our musicians deliver thousands of interactive music programmes in care homes and hospitals, and a range of community and healthcare settings. We also work in special schools, where music can make a huge difference to the lives of children and their families. Our specialist support and training provides young musicians with skills and employment at the start of their professional careers, across all genres of music.”

Comment: While LMN has a quite broad mission beyond just Intensive Care Unit performance, they also have 42 years’ experience promoting the bidirectional relationship between performers and audience., particularly with nontraditional audiences, in healthcare and nursing homes. They also have a lot of experience working with younger musicians just beginning their professional careers.

12) Lastly, a plug for *Waking the Spirit, A Musician’s Journey Healing Body, Mind and Soul*, (Picador/Macmillan, 2016) available as an Amazon bestseller. A chronicle of Andrew Schulman’s odyssey from critically ill ICU patient, whose seemingly hopeless clinical course turned around when his favorite music was played for him, through his first 6 years of playing at the bedside of other ICU patients. In writing the book, he interviewed psychiatrists, psychologists, neuroscientists and patients on the patient’s response to music and the biology behind it. (Full disclosure- Andrew and I have been partners in this project now for nearly 10 years, and I wrote the Afterword and get bragging rights on all that he’s done.)

I have been involved in Music and Medicine lifelong, since first playing hymns on the piano for Aunt Amelia in her terminal illness when I was 11 in 1960. I have reached the point in life where if I just suggest to others how to avoid the mistakes I've made, it can sometimes pass for wisdom. Glad to help anyone new to the cause!

Sincerely,

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