get insight into front line, health care staff experiences with end-of-life issues. The study was undertaken in three distinct research sites in the Republic of Croatia and involved health care staff participants (physicians and nurses) from six health care institutions (six NICUs and six PICUs).

A total of 21 physicians and 25 nurses participated in eight focus groups.

Analysis revealed two main themes, that were equal among professional groups as well as NICU and PICU units. Theme critically ill child consisted of child, family, myself, and other professionals subthemes. Theme end-of-life procedures consisted of subthemes: breaking point, decision-making, end-of-life procedures, ‘spill-over’ and the four walls of the ICU.

Perceptions and experiences of end-of-life issues by nurses and physicians working in NICU and PICU share multiple common characteristics.

Interrelatedness of high emotional and cognitive demands and burden associated with end-of-life issues in this setting seems to have a significant influence on personal and professional lives of professionals.

Additionally, high variability of end-of-life applied procedures, and various difficulties experienced during shared decision-making process, stresses the need for developing guidelines that will inform such a practice, while considering specific perspectives of everyone involved.

### 328 A REVIEW OF EXPERT RECOMMENDATIONS ON END-OF-LIFE ISSUES IN PEDIATRIC INTENSIVE CARE SETTING

Sunčana Janković*, Marko Ćurković, Dina Vrkić, Ana Jozepović, Bojana Nevaljić, Milivoj Novak, Štefan Grosek, Ana Borovečki. UHC Zagreb

One of the most ethically challenging issues in modern medicine are the ones related to end-of-life care. This is especially evident in intensive care setting where healthcare professionals are often involved in decisions about withholding or withdrawing potentially life-prolonging treatment and/or decisions on alleviation of suffering with a possible life-shortening effects. In pediatric intensive care setting, including both neonatal and pediatric intensive care units, there are additional layers of complexity added to end-of-life issues, as patients and their close ones are especially vulnerable and issues around usability, reliability and validity of surrogate decision makers are widespread. These complexities create many tensions that results with high variability on how end-of-life issues are approached in theoretical discussions, handled in practice. Not only that there is a high variability in that sense on global scale, but there is high variability within similar cultural, social, legal and health care contexts, as well as even between different institutions, units, and health care professionals in the single context. This creates a growing need for standardized, clinical and professional guidelines, ones that will be informed by all stakeholders that are included in this process.

There are many recommendations and guidelines regarding treatment end-of-life care crated by national and transnational institutions, while only few of them considering pediatric intensive care setting. In order to systematically identify them a systematic literature search in bibliographic databases and grey literature sources was conducted. The constant comparative qualitative analysis was used in order to identify and extricate their ethical content including ethical positions, ethical arguments and corresponding ethical principles. The aim was to extricate main ethical challenges, to explore how they are dealt with (on a theoretical and practical level), and to extricate main arguments and justifications on which their recommendations are based. The emphasis was placed on how those guidelines are handling specific end-of-life care issues regarding palliative care and/or palliative/terminal sedation; withholding and withdrawing of treatment interventions; and, where applicable, intentional terminating of life. Finally, similarities and disparities between these guidelines are presented and discussed, while also considering their (dis)similarities with guidelines dealing with end-of-life issues in adult intensive care settings.

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### 329 DRUG INDUCED CARDIAC ARREST IN AN ADOLESCENT WITH HYPERTROPHIC CARDIOMYOPATHY?

Toni Matić*, Ivan Bambir, Dalibor Šaric, Sanja Dorner, Milan Cvitković, Slobodan Galić, Filip Ribić, Sandro Dessardo, Milivoj Novak. Department of Paediatrics, University Hospital Centre Zagreb

We present an adolescent with newly diagnosed hypertrophic cardiomyopathy who suffered cardiac arrest with ventricular fibrillation.

We assume these conditions could have been caused by substances commonly abused by adolescents: anabolic steroids and synthetic cannabinoids. Previously healthy, muscular, seventeen-year-old adolescent was examined by a paediatric cardiologist because of chest pain. Asymmetric hypertrophic cardiomyopathy without outflow tract obstruction was diagnosed, with sinus rhythm in 24 hour holter electrocardiogram. Avoidance of sport activities and bisoprolol therapy was suggested, which the patient did not comply to.

There were no heart diseases in the family history.

Four months after, the patient suddenly collapsed while sitting.

Resuscitation was started immediately and defibrillation was used because of ventricular fibrillation. Patient was transferred to the hospital. After additional 80 minutes of resuscitation with recurring ventricular fibrillation, a stable pulse was regained. Since the hemodynamic stability was not achieved with high catecholamine doses, venoarterial extracorporeal membrane oxygenation (ECMO) was administered, which stabilized the hemodynamic status. Day after, the ultrasound showed left ventricle ejection fraction of 45-50%, and a thickened 26-millimeter septum with hyperechogenic and hypokinetic middle part, possibly attributed to ischemic necrosis. Four days later ECMO was discontinued. On day 32, the patient was discharged from the hospital in a good condition with normal neurological status, and with implanted automatic cardioverter defibrillator.

Three months after the discharge, ultrasound showed a 15-millimeter septal thickness and left ventricle ejection fraction of 62%. Cardioverter defibrillator was not activated after implantation. The patient’s appearance was less muscular than at the time of incident.

Although we were not able to prove the presence of anabolic steroids, patient’s muscular appearance and a newly
diagnosed heart condition chronologically connected with the
gym activities, made us suspect of abuse of anabolic steroids
as the cause of hypertrophic cardiomyopathy. A gradual
decrease of the septal thickness later may be connected to the
abstinence from steroids after the incident, although it also
may be attributed to ischemic myocardial necrosis.

Synthetic cannabinoids, usually sold as cheap air fresheners,
are known to cause cardiac infarction and arrest. They are
difficult to prove by laboratory tests. Sources other than the
patient and his parents strongly suggested that the patient
took those substances just before the cardiac arrest. We
assume that there is a significantly greater risk of a life-threaten-
ing arrhythmia and/or cardiac arrest in the case of
hypertrophic cardiomyopathy if the patient abuses synthetic
cannabinoids.

We report a case of extensive deep venous thrombosis (DVT)
and giant thigh abscess associated with Streptococcus pyogenes
sepsis.

A five year old girl was referred to our PICU with an
extensive DVT of the right leg confirmed by CT scan and
with 48h history of fever. There was no evidence of abscess
or other abnormalities. Three days before admission, she fell
from her bicycle and broke a tooth. The older brother had
streptococcal pharyngitis. Initial laboratory findings showed
CRP 360 mg/dL, PCT 78 ng/ml, leucocytosis (20.100/uL),
neutrophilia (banded 6% and segmented 84%), normal haema-
tocrit and low platelet count (48/uL). The remaining labora-
tory values, including electrolytes and coagulation tests were
normal. Eventually, Streptococcus pyogenes was isolated from
blood culture. Subcutaneous enoxaparin was started as well as
antibiotic therapy – with vancomycin, klyndamicin and mer-
openem. The observed progression of leg swelling raised the
suspicion of a cellulitis or DVT progression with developing
warm. Control CT scan showed a huge thigh abscess and
after 5 days of treatment her thigh became paintfully, red and
swollen. Apart from enlarged, reactive lymph nodes, there
were no abnormalities found intraoperatively. However, after
exploration. Eventually we confirmed FV Leiden muta-
tion, as well as low protein C and high homocistein levels.

Infectious diseases are often accompanied by activation of
coaulation.

Cytokines are believed to be important mediators in this
process. A critical role for antecedent soft-tissue injury has
been well established and microorganisms likely hematoge-
nously translocated from throat to deep soft tissues (in this
case by a broken tooth). Vein thrombosis often accompanies
or precedes abscess formation. However, massive DVT should
always raise suspicion for trombophilia.

CT and MRI scans should be interpreted with caution
because S. pyogenes doesn’t promote forming of gas in the
tissues or form free abscesses, so radiologist’s interpretations
are frequently not definitive.

Prompt and aggressive surgical exploration and debridement
of suspected deep-seated streptococcal infection are mandatory,
as well as anticoagulant therapy. If treated properly, morbidity
could be significantly reduced.