



# Apstinencijalni sindrom novorođenčeta

## Neonatal Abstinence Syndrome

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### Apstrakt

*Uvod:* Apstinencijalni sindrom novorođenčeta je predstavljen skupom simptoma, ispoljenih po rođenju, kod novorođenčeta čije su majke u trudnoći (zlo) upotrebljavale opioide, ali i druge psihoaktivne supstance. Prvi put je opisan 1875. godine i nazvan je „kongenitalni morfinizam”. Zloupotreba opojnih droga u poslednjoj deceniji je u porastu, te je i incidencija NAS u porastu (8,8 na 1000 porođaja u hospitalnim uslovima, podatak iz SAD 2016). Klinički simptomi se ispoljavaju kod 60% do 80% novorođenčadi, koja je izložena opioidima in utero, najčešće u prva 72 sata do 7 dana po rođenju. Izdvajaju se 3 grupe simptoma: neurološki simptomi (hiperekscitabilnost, tremorozni pokreti, hipertonus, dugotrajni plač, naglašen Moro, konvulzije...), simptomi GIT-a (dijareja, povraćanje, gubitak telesne težine), simptomi autonomnog nervnog sistema (znojenje, tahipnea, tahikardija, povišena telesna temperatura, zamušnost nosa i kijanje). Dijagnoza se postavlja na osnovu anamnestičkih podataka (koji često nisu potpuni i relevantni), kliničke slike (Finnegan skor, manje upotrebljavani Lipsitz skor, Ostrea bodovanje), detekcije psihoaktivnih supstanci u majčinom i bebinom uzorku urina, mekonijalnoj stolici, tkivu pupčanika, kosi. Diferencijalno dijagnostički dolazi u obzir hipoglikemija, elektrolitni disbalansi, hipoksično ishemijska encefalopatija, intrakranijalna hemoragija. Terapija može biti nefarmakološka: boravak novorođenčeta u tihoj, zamračenoj prostoriji, redovno hranjenje na zahtev, ohrabivanje dojenja, u slučaju kontrolisane primene sintetskih zamena (metadon, buprenorfin), u odsustvu HIV pozitivnosti majke. Farmakološki tretman se odnosi na teže slučajeve: morfin oralno, metadon ili buprenorfin oralno, fenobarbiton oralno, muskularno ili intravenski, kao terapija drugog izbora ili adjuvantna terapija.

*Cilj:* Ukazati na probleme u dijagnostici NAS, kao i na probleme koji nastaju u zbrinjavanju NAS, zbog nepostojanja jedinstvenih terapijskih smernica i protokola (kada je dovoljno samo nefarmakološko zbrinjavanje, a kada i kako započeti farmakološku terapiju, koliko dugo).

*Metoda rada:* Praćenje novorođenčadi sa NAS u protekle 3 godine, na Dečijem odeljenju OB Požarevac.

*Rezultati:* Svako novorođenče sa NAS zahteva specifičan pristup, dugotrajnu terapiju i produženu hospitalizaciju, što će biti navedeno u prikazu slučajeva.

*Zaključak:* Da bi se novorođenčad sa NAS što efikasnije lečila, potrebno je na vreme identifikovati trudnicu zavisnika i prevesti je na kontrolisane doze sintetičkih ekvivalenata, standardizovati dijagnostičke kriterijume i smernice za primenu nefarmakoloških postupaka u lečenju, kao i farmakoterapije (šta, kada i kako).

### Abstract

*Introduction:* Neonatal abstinence syndrome is represented by a set of symptoms, manifested at birth, in newborns whose mothers used opioids and other psychoactive substances during pregnancy. It was first described in 1875 and was called “congenital morphinism”. The abuse of drugs has been increasing in the last decade, and the incidence of NAS is also increasing (8.8 per 1000 births in hospital conditions, data from the USA in 2016). Clinical symptoms appear in 60 to 80% of newborns exposed to opioids in utero, most often in the first 72 hours to 7 days after birth. There are 3 groups of symptoms: neurological symptoms (hyperexcitability, tremors, hypertonus, prolonged crying, accentuated Moro, convulsions...), GIT symptoms (diarrhea, vomiting, weight loss), autonomic nervous system symptoms (sweating, tachypnea, tachycardia, high body temperature, nasal congestion, and sneezing). The diagnosis is made on the basis of anamnestic data (which are often not complete and relevant), clinical picture (Finnegan score, less used Lipsitz score, Ostrea scoring), detection of psychoactive substances in mother's and baby's urine sample, meconium stool, umbilical cord tissue, hair. Differential diagnosis includes hypoglycemia, electrolyte imbalances, hypoxic-ischemic encephalopathy, and intracranial hemorrhage. Therapy can be non-pharmacological: the newborn's bed in a quiet, darkened room, regular feeding on demand, encouraging breastfeeding, in the case of controlled use of synthetic substitutes (methadone, buprenorphine), in the absence of HIV positivity of the mother. Pharmacological treatment refers to more severe cases: morphine orally, methadone or buprenorphine orally, phenobarbitone orally, intramuscularly or intravenously, as second choice therapy or adjuvant therapy.

*Aims:* To indicate the problems in the diagnosis of NAS, as well as the problems that arise in the treatment of NAS, due to the absence of unique therapeutic guidelines and protocols (when only non-pharmacological treatment is sufficient, and when and how to start pharmacological therapy, for how long).

*Method of work:* Monitoring newborns with NAS over the past 3 years, at the children's department of the General Hospital in Požarevac.

*Results:* Each newborn with NAS requires a specific approach, long-term therapy, and prolonged hospitalization, which will be indicated in the case report.

*Conclusion:* In order to treat newborns with NAS as effectively as possible, it is necessary to identify pregnant addicts in time and transfer them to controlled doses of synthetic equivalents, standardize diagnostic criteria and guidelines for the application of non-pharmacological procedures in treatment, as well as pharmacotherapy (what, when and how).

