

p-ISSN 0030-9311
e-ISSN 2338-478x

Volume 54 • No. 4 (Supplement) • July 2014

Paediatrica Indonesiana

(The Indonesian Journal of Pediatrics and Perinatal Medicine)

Abstract of the 16th Indonesian Congress of Pediatrics,
Indonesian Pediatric Society,
Palembang, Indonesia,
August 25-28, 2014



Published by
Indonesian Pediatric Society

| | | | |
|-----|-----------|---|-----|
| 167 | P-HEM-048 | Risk factors for mortality in children with Wilms tumor | 183 |
| 168 | P-HEM-049 | The role of β -thalassemia type c.-582 a>g promoter hamp gene polymorphism, serum hepcidin, and gdf15 level on iron status in newly diagnosed severe β -thalassemia | 184 |
| 168 | P-HEM-050 | The correlation between vivax malaria and iron deficiency in children in malaria endemic area | 184 |
| 169 | P-HEM-051 | Imunophenotype findings and minimal residual disease in childhood acute lymphoblastic leukemia before and after induction chemotherapy | 185 |
| 169 | P-HEM-052 | Ocular malignant fibrous histiocytoma: a rare case | 185 |

Poster: Indonesian College of Pediatrics

| | | | |
|-----|-----------|---|-----|
| 171 | P-COL-001 | Vision, mission, and goals comprehension of pediatric residency training institution at Airlangga University/Dr. Soetomo Hospital Surabaya | 186 |
| 171 | P-COL-002 | Decreased working memory capacity in sleep deprived pediatric residents | 186 |
| 172 | P-COL-003 | The correlation between study duration with child's developmental concerning of pediatric residents in Soetomo Hospital | 187 |
| 172 | P-COL-004 | Factors related to punctuality of scientific schedule among pediatric residents at Airlangga University/Dr. Soetomo Hospital Surabaya | 187 |
| 173 | P-COL-005 | Suggestion to improve scientific scheduling system for pediatric residents at Airlangga University, Dr. Soetomo Hospital Surabaya | 188 |
| 173 | P-COL-006 | National examination in pediatrics training program (Competencies assessment for new graduated pediatricians in Indonesia) | 188 |
| 174 | P-COL-007 | Stakeholders appraisal to pediatricians as graduates from Airlangga University/ Dr. Soetomo Hospital Surabaya: a tracer study (2012 – 2014) | 189 |

Posters: Infection & Tropical Diseases

| | | | |
|-----|-----------|---|-----|
| 177 | P-INF-001 | Dengue shock syndrome in infants | 190 |
| 177 | P-INF-002 | Abdominal tuberculosis as an etiology of fever of unknown origin: a case report | 190 |
| 178 | P-INF-003 | Clinical audit of dengue haemorrhagic fever grade III | 191 |
| 179 | P-INF-004 | A case series of measles: a highly contagious, vaccine preventable disease | 191 |
| 179 | P-INF-005 | Clinical profiles of patient with cytomegalovirus infection | 192 |
| 180 | P-INF-006 | Growth and developmental status in children with human immunodeficiency virus exposed uninfected and infected | 192 |
| 180 | P-INF-007 | Adverse events following immunization in East Java province: a 5 years experience | 193 |
| 181 | P-INF-008 | Factors associated with developmental delay in children with cytomegalovirus infection | 193 |
| 181 | P-INF-009 | Neonatal malaria | 194 |
| 182 | P-INF-010 | Opportunistic infection presentations in children with HIV infection | 194 |

P-INF-003

P-INF-004

Clinical audit of dengue haemorrhagic fever grade III

E Saputra, H Setiawan, L Kartina, D Puspitasari, D Husada,
PS Basuki, Ismoedijanto

Division of Infectious Diseases and Tropical Pediatrics,
Department of Child Health, University of Airlangga Medical School,
Dr. Soetomo Hospital, Surabaya

Abstract

Background. Dengue haemorrhagic fever (DHF) contributes to high morbidity and mortality in children. Clinical audit of DHF is a method to evaluate clinical practice and needed for strengthening its case management.

Objective. To describe clinical practice in case management of DHF grade III as a part of sustainable improvement program for patient care.

Methods. A cross-sectional study was performed, reviewing DHF grade III medical records diagnosed according to WHO Guidelines 2011 at the pediatric emergency room Dr. Soetomo Hospital in 2012 and 2013. We scrutinized the completeness of history taking, physical examination, laboratory and therapy data. *EpiData 2.1* and *STATA 7.0* were used.

Results. Ninety-three medical records were reviewed. Most patients were between 1 to 5 years (98%). Male:female ratio was 50:43. Onset of fever was 100% recorded, which were less than 75% for other data. Cold-clammy extremities and urine production data were 68% and 38% respectively. Vital signs and capillary refill time were well recorded, respectively above 95% and 94%. Only 41% patients underwent rumple leed test. Complete blood count was conducted in all cases. Serologic IgM/G anti dengue were recorded in 23%, and chest radiograph were done in 90%. Seventy-three (78%) received fluid resuscitation with crystalloid or colloid, 52 (71%) with sufficient amount of fluid resuscitation. Crystalloid-dextrose administration were given in 95% patients after stable vital signs were achieved.

Conclusion. Many important data are missing. Improvement efforts in making complete records are needed to promote good clinical practice and DHF grade III patient's care.

Keywords: clinical audit, dengue haemorrhagic fever

A case series of measles: a highly contagious, vaccine preventable disease

Johny Gunawan, Ari Prayitno

Department of Child Health, University of Indonesia Medical School/
Dr. Cipto Mangunkusumo Hospital, Jakarta

Abstract

Background. Measles is a common childhood virus with following clinical manifestations: high fever, cough, coryza and conjunctivitis. A maculopapular rash appears 3-4 days after these initial symptoms. In 2008, measles incidence in Indonesia according to World Health Organization (WHO) was 6.73 per 100,000. Measles is a highly contagious, yet vaccine preventable. First dose of measles vaccination in Indonesia children is given at nine months old, in accordance with WHO recommendation. We noted some incidence of measles occurred in infants less than nine months old.

Objective. To demonstrate case series of three infants under 9 months old with measles, who had no measles vaccination.

Case. This is a case series of three infants under 9 months old with measles. All of them had no history of measles vaccination. They presented with high fever for 3-4 days, cough, cold, and conjunctivitis, followed by maculopapular rashes. Two of them developed pneumonia and the other one had diarrhea. They were diagnosed as measles by clinical manifestation and immunoglobulin M measles confirmation.

Conclusion. Vaccination strategies may need to be adjusted depending on the infant age. Successive seroprevalence measles study in Indonesian under 9 months old infants were needed.

Keywords: measles, under 9 months old, children, vaccination strategies

**CLINICAL AUDIT OF DENGUE HAEMORRHAGIC FEVER GRADE III IN
DR. SOETOMO HOSPITAL**

OE Saputra, H Setiawan, L Kartina, D Puspitasari, D Husada, PS Basuki, Ismoedijanto

Division of Infectious Diseases and Tropical Pediatrics,
Department of Child Health,
Medical School, Airlangga University,
Dr. Soetomo Hospital,
Surabaya

ABSTRACT

Background : Dengue haemorrhagic fever (DHF) contributes high morbidity and mortality in children. Clinical audit is a method to evaluate clinical practice and needed for strengthening DHF case management.

Objective : To describe clinical practice in case management of DHF grade III as a part of sustainable improvement program for patient care.

Methods : Cross-sectional study by reviewing of DHF grade III medical records diagnosed at pediatric emergency room of dr. Soetomo Hospital in 2012 and 2013. We reviewed the completeness of history taking, physical examination, laboratory and therapy datas. We used EpiData 2.1 and STATA 7.0.

Results : 93 medical records were reviewed. Most patient were between 1 to 5 year (98%). Male : female was 50:43. Onset of fever was 100% recorded but other datas were less than 75% recorded. Cold- clammy extremities and urine production datas were 68% and 38%. Vital signs and capillary refill time were well recorded, above 95% and 94%. Only 41% patients underwent rumple leed test. Complete blood count were present in all cases. IgM/G anti dengue were recorded in 23%, and chest radiograph were done in 90%. 73 (78%) received fluid resuscitation with cristalloid or colloid, 52(71%) with sufficient amount of fluid resuscitation. Cristalloid-dextrose administration were given in 95% patients after stable vital sign achieved.

Conclusion : Many important datas are missing. An improvement efforts in making complete records are needed to promotes good clinical practice and DHF grade III patients care.

Key words: *Clinical audit, DHF grade III, children*

INTRODUCTION

Dengue fever (DF)/dengue haemorrhagic fever (DHF) is a growing public health problem in the subtropics.¹ In South-East Asia, approximately 1.3 billion people live at risk of acquiring DF or DHF. Currently, DHF is the leading cause of hospital admissions and death among children in this region.² Indonesia is one of the countries in South-East Asia which have high endemicity of dengue infection. During 2008 – 2013 in six teaching hospitals at Java, Indonesia, 13940 children was admitted with dengue infection and the mortality was 1.39%.³

Dengue hemorrhagic fever with shock is still a serious problem in children.⁴ Dengue shock syndrome (DSS) patients are the group with the greatest risk for complications due to shock, such as acute hepatic failure, acute renal failure, acidosis, disseminated intravascular coagulation (DIC) and electrolyte imbalance.^{1,5,6} Early diagnosis and proper initial management are important to reduce morbidity and CFR in dengue infection.⁷

The high morbidity and mortality of dengue infections in Indonesia has prompted many teaching hospitals in Indonesia, include Department of Pediatric Dr. Soetomo Hospital, to develop clinical practice guideline (CPG) for dengue case management. Reports on dengue management evaluation were limited. Hence clinical audit of DHF grade III to evaluate initial clinical management for patients accordance to Dr. Soetomo Hospital CPG 2012-2014⁸ is needed.

OBJECTIVES

To describe clinical practice in case management of DHF grade III in emergency room as a part of sustainable improvement program for patient care.

METHODS

Data collection

The clinical audit include all medical records of children diagnosed with DHF grade III admitted to pediatric emergency room Dr. Soetomo Hospital between 1st January 2012 and 31st December 2013. All of those medical records were reviewed retrospectively. A data collection form was created based on Dr. Soetomo Clinical Practice Guidelines 2012-2014 to collect relevant data from medical records. All data were collected and evaluated by medical officers. The adherence of clinical practice care (history taking, physical examination, laboratory examination and

therapy) according to the Dr. Soetomo Clinical Practice Guidelines were assessed. We recorded all the written data in medical records. Data collection were done in December 2014.

Audit Standard

The standard for the adherence was set at 100% for all components (history taking, physical examination, laboratory examination and therapy). Adherence of at least 90% was considered acceptable.

Statistical analysis

EpiData 2.1 and STATA 7.0 were used for data entry and compilation.

RESULTS

Ninety-three medical records of DHF grade III were reviewed. Most patients were between 1 to 5 years (98%). Male : female ratio was 50:43. Clinical audit parameters briefly classified into four components : history taking; physical examination; laboratory and radiology examination; therapy and close monitoring. Clinical audit parameters summarized in table 1.

Table 1 Clinical audit parameter according to dr. Soetomo Hospital Clinical Practice Guidelines 2012-2014.

| No | Standard | N | Compliance |
|---|--|----|------------|
| All patients should be asked the following history taking : | | | |
| 1. | Day of illness | 93 | 100% |
| 2. | Day of defervescence | 57 | 61.3% |
| 3. | Nausea and vomiting | 76 | 81.7% |
| 4. | Headache, retroorbital pain | 30 | 32.3% |
| 5. | Abdominal pain | 43 | 46.2% |
| 6. | Loss of appetite | 47 | 50.5% |
| 7. | Bleeding | 67 | 72% |
| 8. | Bone and joint pain | 23 | 24.7% |
| 9. | Urine production | 35 | 37.6% |
| 10. | Cold and clammy extremities | 63 | 67.7% |
| 11. | Reluctant to drink | 44 | 47.3% |
| 12. | Dengue patients in neighborhood | 7 | 7.5% |
| All patients should receive the following physical examination : | | | |
| 13. | Blood pressure | 90 | 96.8% |
| 14. | Pulse/ Heart rate | 93 | 100% |
| 15. | Respiratory rate | 92 | 98.9% |
| 16. | Temperature | 91 | 97.9% |
| 17. | Rumple leede test | 38 | 40.86% |
| 18. | Conciousness | 53 | 57% |
| 19. | Anaemia | 92 | 98.9% |
| 20. | Nasal flare | 91 | 97.9% |
| 21. | Pulmonary examination | 93 | 100% |
| 22. | Cardiac examination | 93 | 100% |
| 23. | Liver examination | 84 | 90.3% |
| 24. | Spleen examination | 84 | 90.3% |
| 25. | Ascites | 18 | 19.6% |
| 26. | Capillary refill time | 87 | 93.6% |
| 27. | Peripheral perfusion | 92 | 99% |
| 28. | Body weight | 92 | 99% |
| All patients should receive the following laboratory and radiology examination : | | | |
| 29. | Complete blood count | 93 | 100% |
| 30. | Liver function | 86 | 92.5% |
| 31. | Albumin | 64 | 68.9% |
| 31. | Renal function | 46 | 49.5% |
| 32. | Blood gas analysis | 27 | 29% |
| 33. | Blood glucose | 64 | 68.8% |
| 34. | Serum electrolyte | 71 | 76.3% |
| 35. | IgG/M dengue | 9 | 9.7% |
| 36. | Chest X-ray | 84 | 90.3% |
| All patients should receive the therapy and close observations : | | | |
| 37. | Adequate amount of fluid resuscitation | 52 | 71.2% |
| 38. | Appropriate bolus rate of fluid resuscitation | 68 | 93.1% |
| 39. | Ringer Lactate or Ringer Acetate with Dextrose 5% fluid administration after stable circulation achieved | 89 | 95.7% |
| 40. | Oxygen therapy | 19 | 20.43% |
| 41. | Urine catheter insertion | 5 | 5.4% |
| 42. | Nasogastric insertion | 1 | 1% |
| 43. | Close observation of vital sign hourly | 89 | 95.7% |

DISCUSSION

We did clinical audit of DHF grade III (compensated shock) initial management in pediatric emergency room since patients with profound shock would be managed in resuscitation room by anaesthesiologist. We aimed to describe of clinical practice for all DHF grade III patients by determining the adherence to Dr. Soetomo Hospital CPG 2012-2014.

Our study revealed parameters of the standard history taking were under-performed. Only day of illness parameter was good-performed. The compliance on the physical examination and observation components such as rumple leede test, consciousness, ascites, liver and spleen examination were under < 90%. There were some possibilities that might influence this findings such as the particular examination might not be done, the physician did complete examination but not written completely.

Only complete blood count parameter was performed 100%. Chest X-ray compliance was acceptable 90.3%. Liver function, renal function, albumin, blood glucose, blood gas analysis, serum electrolyte were less than 90% performed. Serological examination (IgG/M Dengue) were performed about 9.7%. During 2012-2013 serological test for dengue in dr. Soetomo Hospital was not available along the year due to reagen limitation. Financial problem, uncovered by insurance were issues that explain why laboratory examination under-performed.

Adequate volume in fluid resuscitation was under the standard of compliance. Rate of fluid resuscitation bolus and fluid type usage after stable circulation had been achieved-parameters was acceptable. Nasogastric and urine catheter insertion, oxygen therapy seemed not performed routinely.

In our study, the compliance of overall parameters according to dr. Soetomo Hospital CPG under the standard. An experience from Thailand with the program for strengthening DHF case management, such as applying guidelines could decrease DHF case fatality rate in 2008.⁸ This clinical audit might give feedback for stakeholders in dr. Soetomo Hospital to improve the clinical practice in DHF grade III initial management. The program for strengthening DHF case management improved clinical outcomes is needed.

CONCLUSIONS

Periodic review on performance in assessing, diagnosing and managing dengue patients, is essential to identify areas for improvement. Many important data are missing. An improvement efforts in making complete records are needed to promote good clinical practice and DHF grade III patients care.

REFERENCES

1. Guzman MG, Kouri G. Dengue: an update. *Lancet Infect Dis* 2002;2:33-42.
2. World Health Organization. Dengue haemorrhagic fever: diagnosis, treatment and control. Geneva; 1998.
3. Data rawat inap pasien demam dengue, demam berdarah dengue, dan sindrom syok dengue tahun 2008-2013 Departemen Ilmu Kesehatan Anak RSUPN Dr. Cipto Mangunkusumo, RSUP Dr. Cipto Mangunkusumo, RSUP Dr. Hasan Sadikin, RSUD Dr. Sutomo, RSUP Dr. Sarjito, RSUP Dr. Karyadi dan RSUP Dr. Mohammad Hoesin.
4. Djoharman S, Samsi TK. Demam berdarah dengue berat dengan konfirmasi virologik. *Cerm Dunia Kedokteran edisi khusus* 1992;81:40-3
5. Ranjit S, Kisson N, Jayakumar I. Aggressive management of dengue shock syndrome may decrease mortality rate: a suggested protocol. *Pediatr Crit Care Med* 2005;6:412-9.
6. Wills BA, Nguyen MD, Ha TL, Dong TH, et al. Comparison of three fluid solutions for resuscitation in dengue shock syndrome. *N Engl J Med* 2005;353:877-89.
7. Kalayanavooj S. Standardized clinical management: evidence of reduction of dengue haemorrhagic fever case-fatality rate in Thailand. *Dengue Bull* 1999;23:10-7.
8. Departemen Ilmu Kesehatan Anak RSUD Dr. Soetomo Surabaya. Panduan praktik klinis, 2012:213-5.
9. Mayurasakorn S, Suttipun N. The impact of a program for strengthening dengue hemorrhagic fever case management on the clinical outcome of dengue hemorrhagic fever patients. *Southeast Asian J Trop Med Public Health*. 2010 Jul;41:858-63.



Indonesian Medical Association

Indonesian Congress of Pediatrics



Palembang - Indonesia, August 25-28, 2014

Certificate of Attendance

This is to certify that

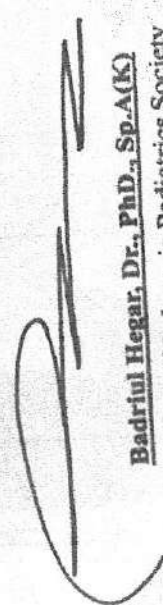
Dominicus Husada

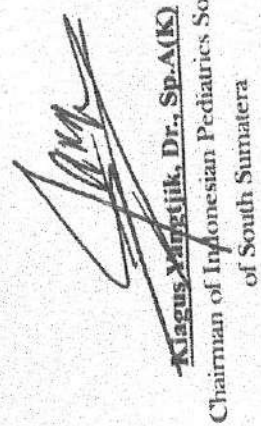
has attended the 16th Indonesian Congress of Pediatrics (KONIKA XVI)


“Towards Global Equalities in Sustainable MDG’s
Achievements Through Comprehensive Health Care, for All Indonesian Children”

as

PARTICIPANT


Badriul Hagar, Dr., PhD., Sp.A(K)
President of Indonesia Pediatrics Society


Klagus Mergatik, Dr., Sp.A(K)
Chairman of Indonesian Pediatrics Society
of South Sumatera


M. Nazir, Dr., Sp.A(K)
Chairman of the 16th KONIKA

This program has been accredited by Indonesian Medical Association (IMA/IDI) with maximal credit points of 30 (participant), 1 (speaker), and by Indonesian Pediatrics Society (IPS/IDAI) as category I and V CPD (No. 6754/CPD- 1/Apl/2014 and 6755/CPD-V/Apl/2014)
SK PB IDI No.1223/PB/A.4/08/2014: participant 15, speaker 12, moderator 4, committee 3.