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Dr. Azanna Ahmad Kamar

PSM BULLETIN

February 2014 Issue

Message From The President

Happy New Year…

The excitement of venturing into the galloping year of 2014 has all of us in the Committee diligently working towards the upcoming Congress of PSM. We are looking forward to the presence of approximately 400 local and overseas delegates from the 20th – 24th March 2014. As the event will be held at the One World Hotel, I can also foresee this to be moments for rekindling friendships and having a good time!

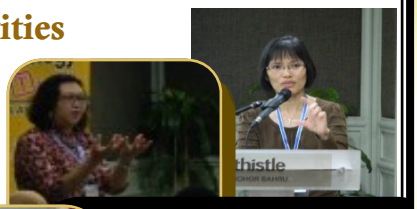
Apart from this, we are committed to ensure that other programmes are carried out appropriately, namely the CTG courses for paramedics and junior doctors, the NRP courses and the Neo TNT courses.

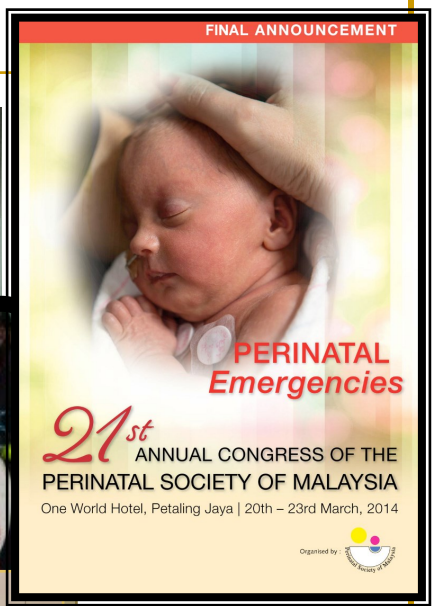
Then again, I will have to lay emphasis on the stagnant membership roll of the society. Apart from this, the issue of lapsed membership is also a cause for concern. Thus, we are zealous in looking into ways of reviving the membership drive and encouraging members of this fraternity to continuously support and engage in the realm of Perinatology: thus deriving the benefits thereof.

As for the active members, I thank you for your incessant support and hope to have a fructuous year ahead.

Dr Bavanandan Naidu.

PSM Activities Photo Album





Clockwise from left :
CTG course Sg Buloh participants, Dr. Angeline Wan and Dr. Chia LS with NeoTNT participants, the 2013/2014 Council Members at work.

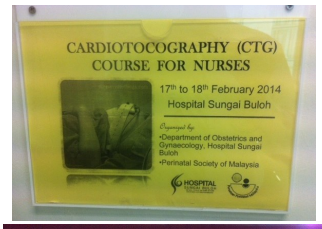
Neo-Total Nutrition Therapy (Neo TNT) Southern Workshop

On November 16th 2013, the Perinatal Society of Malaysia (PSM) hosted its first local Neonatology Total Nutrition Therapy (NeoTNT), in Johor Bahru, a one-day conference designed to promote the sharing of emergent nutrition strategies amongst neonatologists, paediatricians, medical officers, senior nurses and dieticians.

The conference attracted 27 healthcare providers from the Southern region of Malaysia. The top draw was an expert panel of 3 local speakers, including Dr See Kwee Ching, Dr Angeline Wan and Dr Chia Lee Ser. PSM has now continued the program by extending it to Northern region of Malaysia; it is hoped that the NeoTNT will serve as a catalyst to increase awareness of appropriate nutritional protocols in premature infants. Post-event surveys indicated 100% participant satisfaction across all measures.

Selangor Cardiotocography (CTG) Course : Hospital Sungai Buloh

The first PSM CTG training course was organised in September 2013 at Hospital Seberang Jaya. The second in Hospital Sungai Buloh. The PSM will continue to organise more regional CTG courses in future.



The second CTG course for the nurses and junior doctors was recently held in Hospital Sungai Buloh on the 17 th and 18th of February 2014. The course was jointly organized by the Perinatal Society of Malaysia and Obstetrics & Gynaecology Department of Hospital Sungai Buloh. There were 31 participants from various hospitals in Selangor, namely Hospital Sungai Buloh, Hospital Putrajaya, Hospital Banting, Hospital Kajang and Hospital Ampang. The course was conducted by Dr TP Baskaran from Kuala Lumpur Hospital and by Dr Bavanandan Naidu from Hospital Sultanah Bahiyah, Alor Setar.

The two days course consisted of lectures, interactive sessions and case based discussions. The participants were both required to work individually and also in groups, hence giving them good insight and knowledge of interpreting CTG in the Labour Room setting. As during the first CTG course, there was active participation during the interactive session and positive feedback from participants was received.

Preterm Births : The Diagnostic Dilemma if Delivery is Imminent

Dr. Sharmini Diana Parampalam and Dr. Carol Lim KK

Preterm birth is defined as delivery that occurs before 37 completed weeks gestation. Preterm babies may pose a burden to both parents and healthcare providers as these babies face a lot of complications and use a lot of resources during their prolonged hospital stay. Hence, it is important to accurately make this diagnosis so that appropriate intervention can be put in place in timely manner to prevent or to prepare for this delivery where possible.

How does one predict imminent preterm delivery ? Less than 50% women with threatened preterm labour actually deliver when they present at hospital.

Many mothers present with symptoms of preterm birth and there is a diagnostic dilemma as to correctly predict if it is a true or a threatened preterm birth. Less than 50% of women with threatened preterm labour actually deliver when they present at hospital An accurate diagnosis will aid in reducing unnecessary tocolysis, steroid administration and patient transfer to tertiary centre. It will also reduce unnecessary admissions.

Two biological markers have been commonly studied to predict delivery. They are phosphorylated insulin-like growth factor binding protein-1 (IGFBP1-P) or Actim-Partus and Fetal fibronectin (fFN).

A widely used bedside predictive test for mothers with symptoms of preterm birth is phosphorylated insulin-like growth factor binding protein-1 (IGFBP1-P) (marketed as Actim-Partus), whereby detection of this has been shown to be associated with an increased risk of preterm delivery. This test involves a speculum examination and a smear from the posterior fornix of the vagina. The results are available immediately. A positive test will indicate that preterm delivery may occur in the next seven days. Mothers who test negative can be allowed home.

There are some false positive results if there has been coitus, digital vaginal examination and transvaginal ultrasound examination 24 hours prior to testing. Conversely, false negative results may also occur with the use of intravaginal lubricants and disinfectants.

A study of IGFBP1-P as a bedside test to predict preterm labour was carried out in Sabah Women's and Children's Hospital in 2007, where the sensitivity, specificity positive predictive value and negative predictive value were 33%, 94%, 60% and 85% respectively in predicting delivery within 7 days. The investigator had concluded that IGFBP1-P can be used in the local (Sabah) setting to help decide which patients are at risk of preterm labour and this require transfer to a centre with neonatal facilities.

Fetal fibronectin (fFN) is a glycoprotein promoting adhesion between the fetal chorion and maternal deciduas. Elevated levels of fFN (typically > 50ng/ml) in cervicovaginal secretions between 24 and 36 weeks' gestation are associated with an increased risk of preterm birth.

Both the tests have high negative predictive values (>97%) for delivery in the next 7 days , which make them a good test to rule out preterm labour.

Recommendations

By including such a bed side, point-of care test in the cases of threatened preterm labour, more accurate diagnosis of preterm labour could be achieved, thus avoiding unnecessary intervention. Not only these tests are useful in the setting of non-specialist hospitals (to decide if a transfer of care is necessary), they are also applicable for busy specialist hospitals where NICUs / ventilators are often fully occupied, where a search for hospital with ventilator is only necessary if the test is positive. There is perhaps a role for such a test in community setting as well, especially in the light of recent guidelines that allow community nurses to administer antenatal corticosteroids, which often is not an accurate diagnosis resulting in unnecessary intervention.

Perhaps it is time for us, whether in specialist hospitals, non-specialist hospital or even major health clinics with heavier workload, to consider using such point-of-care testing to better predict and thus manage women with threatened preterm labour.

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2. Guidelines for the management of spontaneous preterm labor:dentification of spontaneous preterm labor, diagnosis of preterm Premature Rupture Of Membranes, And Preventive Tools For Preterm Birth The Journal Of Maternal-Fetal And Neonatal Medicine, May 2011; 24(5): 659–667

3. Predicting Preterm Labour: Evaluation of Insulin-Like Growth Factor Binding Protein-1 as A Bedside Test. 2007. Dr Lavitha Sivapalam (personal communication)

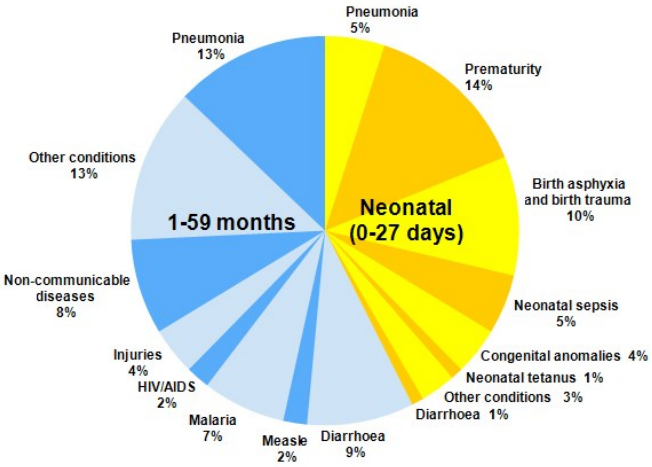
Every Newborn : A Draft Action Plan to End Preventable Deaths

Summarised by : Dr. Azanna A Kamar *www.everynewborn.org*

The 28th of February 2014 marks the last date for public commentary for the **WHO's Every Newborn Action Plan.** The final plan is scheduled to be submitted during the World Health Assembly in May this year.

The World Health Organisation (WHO) reports that every year, 287 000 women die from complications of pregnancy and childbirth, 2.6 million babies are stillborn and 2.9 million babies die in the first months of life. The global annual average rate of decline in newborn deaths since 1990 has been 2.1%, lower than that of maternal mortality (3.1%) and mortality of children aged 1–59 months (3.5%) and far less than the 4.4% required to achieve Millennium Development Goal 4 and the 5.2% required to achieve the goal that was set in *Committing to Child Survival: A Promise Renewed*.

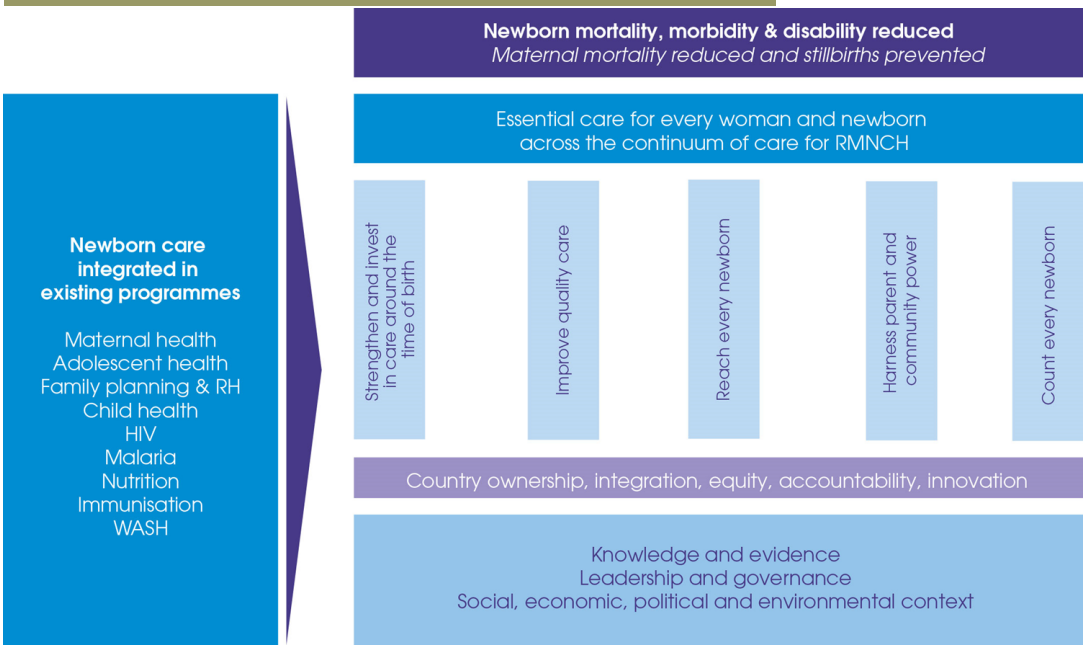
75 high-burden countries were identified where 95% of the global maternal and child deaths occur. At the 64th World Health Assembly, Member States noted uneven progress towards achieving Millennium Development Goals 4 and 5, and that progress towards reducing perinatal and neonatal mortality had stagnated. The Health Assembly, working towards the reduction of perinatal and neonatal mortality, requested the Director-General to promote targeted plans to increase access to high quality and safe health services to prevent and treat perinatal and neonatal conditions. The present draft action plan responds to that request.The plan emphasizes **reaching every woman and every newborn baby, in particular when they are most vulnerable, namely in labour, during childbirth and in the first days of a newborn's life.** Effective care for mother and baby at this time also reduces maternal mortality and intrapartum stillbirths, resulting in a triple return on investment .



44% of under 5 mortality is attributed to neonatal deaths. More than 85% of newborn mortality is due to 3 causes : (i) Complications of Prematurity (ii) Intrapartum-related Neonatal Deaths (including birth asphyxia), and (iii) Neonatal Infections

The *Every Newborn* action plan proposes five strategic objectives.

Strategic objective 1: Strengthen and invest in care during labour, childbirth, and the first day and week of life. More than one-third of stillbirths (1.2 million), 75% of newborn deaths (2 million) and 72% of maternal deaths (206 250) occur within this period. Many deaths and complications can be prevented by ensuring provision of high-quality, essential care for every pregnant woman and every baby around the time of labour, childbirth and in the first 24 hours and week after birth.



EVERY NEWBORN CONCEPTUAL FRAMEWORK : Integration is the main driver behind implementation of this action plan, requiring collaboration of multiple programmes and platforms relating to essential newborn interventions.

Every Newborn : A Draft Action Plan to End Preventable Deaths

From page 4.

These interventions include: (i) management of preterm birth, including the antenatal use of corticosteroids; (ii) skilled care at birth; (iii) basic obstetric care; (iv) comprehensive obstetric care; (v) essential newborn care including warmth, hygiene and feeding; (vi) neonatal resuscitation; (vii) kangaroo mother care; (viii) treatment of possible severe neonatal infections; and (ix) supportive care for sick newborns.

A full plan for defining and measuring coverage and quality of these indicator packages, with more robust and frequent measures of impact measurement will be developed within 12 months of the endorsement of the action plan, through collaboration with other global plans, expert metric organizations

Strategic objective 2: Improve the quality of maternal and newborn care. Substantial gaps in the quality of care exist across the continuum of care for women and children's health. In many settings women and newborns do not receive the care that they need even when they have a contact with the health system whether before, during or after pregnancy. The key to success in improving is introducing high-quality care with high-impact, cost-effective interventions for mother and baby together – in most cases, by the same health providers at the same time.

Strategic objective 3: Reach every woman and every newborn to reduce inequities. Access to high-quality health care that people need without suffering financial hardship when paying for them is a human right. Currently less than one in six countries with the highest burden of maternal and newborn mortality reaches the minimum benchmark of 23 doctors, midwives and nurses per 10 000 population that is necessary to provide a basic package of care. Severe shortage of midwives exist in at least 38 countries. There is increasingly robust evidence of approaches for ending preventable newborn deaths that effectively accelerate the coverage of essential interventions, through innovations that include task sharing, improved access to life-saving commodities, health insurance and financing mechanisms, and use of information technology and social and knowledge networks.

Strategic objective 4: Harness the power of parents, families and communities.

Indicator		Target			
		2020	2025	2030	2035
Impact global level					
Neonatal mortality rate per 1000 live births A neonatal death is defined as a death within 28 days of birth of any liveborn baby regardless of weight or gestational age		15	12	9	7
Equivalent to 66% reduction in neonatal mortality rate for all countries by 2035, from the baseline of 2012					
Rate of stillbirths per 1000 total births			11		8
Coverage and quality of care at national level					
Proportion of births attended by skilled health personnel		Universal	Universal		
Percentage of women and newborns who receive high quality care at birth*		90% of all facility births receive this care	95% of all women and their newborn receive this care		
Percentage of small and/or sick newborns who receive high quality care* a. *Number of babies not breathing after birth receiving bag and mask resuscitation* *b. Preterm babies weighing less than 2000 g who receive kangaroo mother care and other supportive care* *c. Newborns with possible serious bacterial infection who receive appropriate antibiotic therapy*		 >50% >50% >50%	 >75% >75% >75%		
Percentage of women and newborns who receive early postnatal care (within two days of birth)*		20% increase on baseline from 2012 (or 90% if nat. baseline > 70%	90% coverage		
Linkages	The Action Plan will complement other global and national plans, and support the linked goals. Some examples are shown.	Family Planning 2020	Nutrition: exclusive breastfeeding at 6months: 50%		

Every Newborn : A Draft Action Plan to End Preventable Deaths

From page 5.

Education and information are crucial for empowering parents, families and their communities to demand quality care. Evidence has shown the power of engaged community leaders, women's groups, and community workers in turning the tide for better health outcomes for newborns. Participatory learning and action in poor rural communities is a core intervention that requires investment and expansion.

Strategic objective 5: Count every newborn - measurement, programme tracking and accountability. Measurement enables managers to improve performance and adapt actions as needed. Assessing outcomes and financial flows with standardized indicators improves accountability. There is an urgent need to improve the metrics globally and nationally, especially for birth outcomes and quality of care. Every newborn needs to be registered and newborn deaths need to be counted. Counting every maternal death and stillbirth is of equal importance.

Putting the Newborn action plan into practice requires commitments. Five guiding principles were proposed :

(a) **Country leadership**: Countries have the primary ownership and responsibility for establishing good governance and providing effective and good-quality reproductive, maternal and newborn health services. Community participation is a key feature of such leadership as it is one of the most effective transformational mechanisms for action and accountability for newborn health. Development partners should align their contributions and harmonize action.

(b) **Integration**: Providing every woman and every newborn with good-quality care requires integrated service delivery with coordinated health system approaches between multiple programmes, stakeholders and initiatives across the continuum of reproductive, maternal, newborn and child health are essential, without losing visibility for newborn specific content.

(c) **Equity**: Equitable and universal coverage of high-impact interventions, and a focus on reaching the most vulnerable and poorest population groups are central to realizing the right of every woman and every newborn, girl and boy, to health.

(d) **Accountability**: Transparency, oversight and accountability are prerequisites for equitable coverage, quality of care and optimal use of resources.

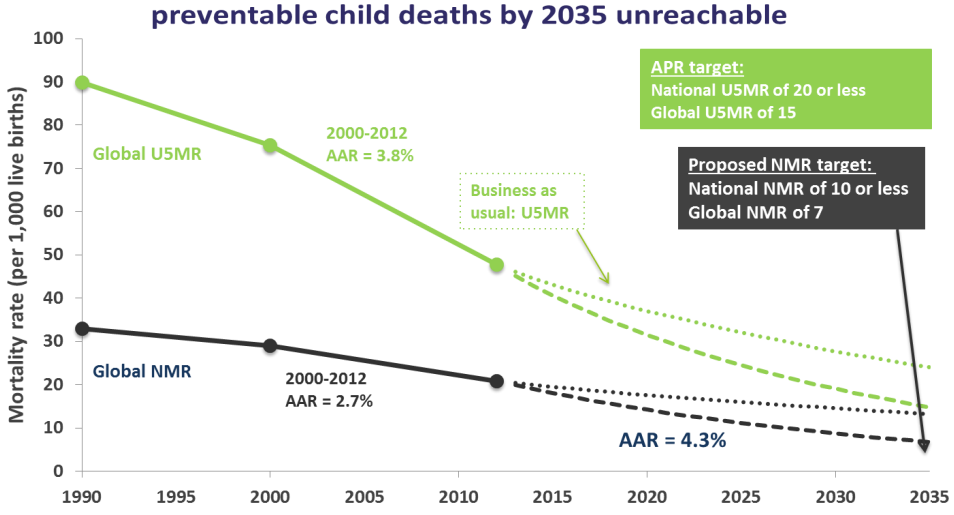
(e) **Innovation**: Evidence has been accumulating over the past decade of strategies that broaden the coverage of interventions for newborns and reduce mortality. Nevertheless, innovative thinking is needed about ways to reach the poorest and most underserved populations. Research on ptimizing the application of knowledge of which interventions and strategies are most effective will be prioritised.

Within 12 months of the adoption of the plan, a monitoring framework for the *Every Newborn* action plan will be elaborated, in terms of defining and measuring coverage and quality of the target packages of care, as well as more robust and frequent measurements of impact, through collaboration. This monitoring and evaluation plan will coincide with the reviews of progress towards the Millennium Development Goals in 2015 and be ready for the post-2015 era.

The overall goal and targets of this action plan will be marked by milestones (page5). These will be defined for the period 2014–2020. They will therefore form the starting point for accountability and independent oversight and will be the basis for monitoring progress in implementation.

NEW NEONATAL MORTALITY TARGET

Unless we greatly accelerate newborn survival efforts, goal to end preventable child deaths by 2035 unreachable



Scenario	2035 global NMR	2035 neonatal deaths
If current trends are unchanged	13	1.8 million
Every country to NMR of 10 per 1000	7	0.9 million
Similar to 2/3 reduction in NMR as if a continuation of MDG4		

Understanding Infantile Colic and its Management *Dr. See Kwee Ching*

Infantile colic is a benign, self-limiting disease that to date, has no standard definition. Most clinicians follow the **Wessel's rule of three**, diagnosing an infant as having colic if the baby is healthy, thriving and cries for more than three hours each day, more than three days a week, for more than three consecutive weeks.

Usually diurnal (**Figure 1**) and age dependent, infantile colic occurs mostly in the late afternoons or early evenings, starting at about two weeks of age and ending at about four to five months of age.[1] Infantile colic prevalence in the European society is 5-19%, which may reflect Malaysian statistics.[2]

Signs and Symptoms

Infantile colic usually begins suddenly with the child exhibiting a flushed face, pallor around the mouth, continuous, loud, piercing cries, distended, tense abdomen with hips drawn up against it, cold feet, stiff legs, clenched hands and sometimes arching.[1]

Possible Predispositions and Causes

Søndergaard et al found that low birth weight babies (< 2500 gm) have twice the risk of being reported as having colic compared to those weighing between 3,500 and 4,499 gm (OR, 2.9; 95% CI, 1.6-5.4).[4] Organic causes of infantile colic is only found in 5-10% of cases and includes :

Organic Entities	Strength of Evidence	Estimated Prevalence
Cow's Milk Protein Intolerance	Strong	< 5%
Isolated Fructose Intolerance	Strong	Rare
Maternal Drug Effects	Strong	Varies
Anomalous Left Coronary artery from Pulmonary Artery	Strong	Very rare
Infantile migraine	Moderate	Rare
Reflux oesophagitis	Moderate	Rare
Shaken Baby Syndrome	Moderate	Varies
Congenital glaucoma	Weak	Rare
CNS Abnormalities	Weak	Rare
Urinary Tract Infections	Weak	Varies
Lactose Intolerance	Very weak	Not etiologic

From : Gormally SM, Barr RG ,Ambul Child Health 3: 137-153, 1997

Every Newborn : Statistics and Figures

Malaysia Perinatal Health Indicators (Department of Statistics Malaysia)						
Indicator_Name	**2000**	**2008**	**2009**	**2010**	**2011**	**2012**
Mortality rate, under-5 (per 1,000 live births)	10.2	8.2	8.3	8.4	8.5	8.5
Mortality rate, infant (per 1,000 live births)	8.7	7	7.1	7.2	7.3	7.3
Number of neonatal deaths	3000	2000	2000	2000	2000	2000
Number of maternal deaths	220			170		
Number of under-five deaths	6000	4000	4000	4000	4000	4000

Selected Countries' Data and Rankings for Preterm Births in 2010

Country Name	Live Births	Preterm Birth Rate	Rank for Preterm Birth Rate	Number of preterm births	Rank for number of preterm births	Deaths from complication of preterm births	Rank for deaths due to complications of preterm births
Malaysia	576 400	12,3	47	70 900	41	700	89
India	27 200 000	13,0	36	3 519 100	1	303 600	1
United Kingdom	756 600	7,8	134	59 300	46	1 300	74
China	16 600 000	7,1	154	1 172 300	2	57 200	4
United States	45 400	12,0	54	517 400	6	5 800	37
Singapore	45 400	11,5	67	5 200	126	<50	160

Preterm rate and births data from :
H. Blencowe, S Cousens, MZ Oestergaard, D Chou, AB Moller, R Narwal, A alder, CV Garcia, SR Rohde, L Say, JE Lawn. National, regional and worldwide estimates of preterm birth rates in the year 2010 with time trends for selected countries since 1990: a systematic analysis and implications. Estimates for World Health Organisation, 2012.

Preterm deaths data from :L Liu, H Johnson, S Cousens,J Perin, S Scott, J Lawn, Black RG et al. Global, regional and national causes of child mortality: an updated systematic analysis. The Lancet - in press. 2012

2014 Highlighted Events

PSANZ Annual Congress 2014
April 6th–9th 2014
Crown, Perth, Western Australia
Networking the New Frontier
www.psanz.com.au

The International Neonatology Association Conference 2014 (INAC 2014)
April 3rd - 5th 2014
Valencia, Spain
www.worldneonatology.com

Neonatal Pulmonology in Naples
April 11th and 12th 2014
Naples, Italy
Centro Congressi Universita Federico II
www.neonatalpulmonologynaples.it

XXIV European Congress on Perinatal Medicine
June 4th - 7th 2014
Palazzo dei Congressi, Florence, Italy.
www.ecpm2014.org

18th Federation of the Asia Oceania Perinatal Societies & Bangladesh Perinatal Society 2014
November 6th - 9th 2014
Dhaka, Bangladesh
Bangabandhu International Conference Centre (BICC)
Reaching out to maternal and newborn health beyond MDG: promise to renew
www.18thfaopsdhaka2014.com

Cont. Understanding Infantile Colic and its Management

Dr. See Kwee Ching

From page 7.

The following psychosocial and gastrointestinal disorders are possible causative factors of infantile colic:

- Food intolerance
- Emotional/psychological reasons
- Poor feeding habits.
- Increased intestinal air load.

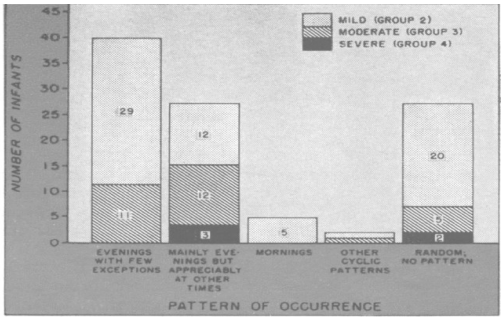


Fig.1: Daily rhythm and distribution of colic episodes

Cow's milk protein and lactose are among some of the food associated with infantile colic.[5,6] In the case of lactose maldigestion, excess intestinal gas leads to 'windy belly', flatulence and loose stools.[7] There are two kinds of diets proposed to help alleviate these symptoms: lactose-free and low-lactose diets.[8]

Keefe MR et al further found that better bonding with the caregiver reduces the incidence of infantile colic.[9] In such cases, social circumstances, parent-infant interactions and contributions of extended family members become important factors in the diagnosis and treatment of infantile colic.

Situations which disrupt the normal function and capacity of the gut ie, arrhythmic sucking, over- or underfeeding by caregivers, discomfort during feeding and gastroesophageal reflux (GER)-caused aerophagia, can also lead to colic.[10]

Management of Infantile Colic

Management of infantile colic with known organic causes is directed towards its underlying etiology. Certain pharmacological treatment such as anticholinergic drugs (ie dicyclomine) can cause severe adverse effects and therefore must be used with precaution.[5]

Non pharmacological treatment such as behavioral management requires face-to-face chats with the parents to:

- Address parental anxieties
- Identify and eliminate possible food allergies
- Switch to special diets such as hypoallergenic, lactose-free, or partially-hydrolysed formulas
- Promote better parent-infant interaction
- Encourage mothers to continue breastfeeding.[11] If there are maternal concerns about allergy issues, dietary restrictions for the lactating mother is currently not recommended
- Discourage self-medication.

Explaining colic and the associated crying properties to parents may reduce the risk of shaken baby syndrome. Stress on the PURPLE approach, whereby.[12]

- **P**(eak): The crying will peak in the evenings and gradually subside
- **U**(nexpected): The cause of crying may not be identifiable
- **R**(esists soothing): Efforts to soothe the crying will not help much
- **P**(ain-like face): The child is not in pain despite seeming otherwise
- **L**(ong lasting): Crying can last for three hours or more daily.
- **E**(vening): Crying occurs more in the late afternoon and evening.

To cope better, parents can increase contact by carrying, walking and talking to the child; walk away from the child for a few minutes and calm down if frustrated. Parents are advised to never shake or hurt their child.

Clinicians should not downplay parental concerns.[13] While child's crying patterns should be monitored, management should not be focused only on the infant but also on parents.

Conclusions

Infantile colic is often harmless and resolves by the age of 3-4 months. The pathophysiology for most cases is not yet fully understood, therefore no standardized management approach can been defined. Parents will be stressed by this situation, so explanations using the PURPLE approach help promote parental self-management. Dietary and behavioral intervention may help alleviate symptoms and parental stress.

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