Research Article

The Status of Baby Friendly Hospital Initiative under Hospital Quality Assessment Criteria Implementation: A Report in Vietnam

Luong Duong Huy1*, Khue Luong Ngoc2, Phuong Do Hong3, Mai Dinh Le4, Aisling Nora Daly5 and Thuy Do Thi Thu5

1Division of Quality Management, Vietnam Administration of Medical Services, Ministry of Health, Vietnam
2Vietnam Administration of Medical Services, Ministry of Health, Vietnam
3Nutrition Specialist, Hanoi, Vietnam
4Department of Hospital Quality Management, Vietnam National Cancer Hospital, Hanoi, Vietnam
5Department of Nutrition, UNICEF Office in Hanoi, Vietnam

ABSTRACT

Since 1994, Vietnam has implemented the Baby Friendly Hospital Initiative (BFHI). Less than 1% of hospitals have been certified as BFHI in over 10 years. In 2013, the BFHI criteria (numbered E1.4) was successfully linked with the health system through its inclusion within the Ministry of Health (MOH) Hospital Quality Assessment Criteria. Through these criteria, the steps for successful breastfeeding became mandatory for all hospitals both public and private, which provide maternal and child care. This report was to examine the impact of these criteria on breastfeeding practices among mothers at hospital levels, focusing on challenges and good practices for lessons learned. Using a mixed methods approach, this assessment looked at the official data on Criteria E1.4, qualitative observation and discussion visits to 8 hospitals in 2 large cities in Vietnam. The findings showed improvements in implementation of Criteria E1.4 since 2013, with both cities reaching an average of Grade 3 (the average acceptable standard) as well as increasing breastfeeding rates in terms of early initiation of breastfeeding within the first hour after delivery. Challenges in reaching higher grade scores on these criteria related to difficulties with early initiation of breastfeeding following C-section deliveries, no mechanism for support between departments of the hospital and no mechanism for continued breastfeeding support at the community level when mothers are discharged from hospital. Many learnings from this report can help contribute to the revision of the Hospital Quality Assessment Criteria, to further strengthen the regulatory environment around breastfeeding protection, promotion and support.

Keywords: Baby friendly hospital initiative; Hospital quality assessment criteria; Breastfeeding practices

Introduction

The Baby-Friendly Hospital Initiative (BFHI), launched internationally in 1991 by the World Health Organization (WHO) and United Nations Children’s Fund (UNICEF), which stated that “Hospitals or maternity facilities that comply with the Ten Steps to Successful Breastfeeding and with the relevant aspects of the International Code of Marketing of Breast milk Substitutes and subsequent relevant World Health Assembly resolutions are designated as baby-friendly”. This initiative aimed to give every baby the best start in life by creating a health care environment where breastfeeding is the norm [1,2]. Since 1994, Vietnam has implemented this program to all hospitals. However, since this was promoted on a voluntary basis, the majority of hospitals failed to commit to full implementation and therefore were not registered as BFHI certified. The hospitals did not want to register for being certified as BFHI as it would create more work for their staffs, while they are already overloaded. Moreover, if hospitals are certified as BFHI they are not allowed to receive donation or support from formula milk companies. Based on information provided by WHO, since 1994 in Vietnam, only 0.5% of Central, Provincial and District level hospitals were certified (57/12,146 hospitals) [3]. In a country where more than 93.6% of deliveries are assisted in health facilities but the neonatal death is not low (12.4 per 1,000 live births with a total of 17,500 newborn deaths in 2012), BFHI should be a flag program towards the protection, promotion and support of breastfeeding in Vietnam. Yet, until 2013, no clear policies and guidelines of BFHI implementation were in place [4,5].

Breastfeeding is proven to bring a great number of benefits for mothers and babies in terms of health and economic gains [6-8]. In particular, breast milk contains some valuable elements such as transforming growth factor beta, interleukin-10, erythropoietin and lactoferrin which helps to reduce the inflammatory response to stimuli in infants [9,10]. Besides, cytokines, bioactive enzymes and immunological agents within early breast milk also contribute to strengthen babies’ immune system [11,12]. Some prior studies also pointed out that the early contact between mothers and their infants through breastfeeding within the first hour of birth can provide significant positive effects on mothers and infants’ health outcomes like cardio-respiratory stability, maternal satisfaction, reducing hypothermia, etc. [13-15]. Therefore, increasing breastfeeding rate will be likely to reduce the economic burden in diseases treatment and expenditure on breast milk substitutes. It was estimated that doubling the percentage of breastfeeding for 7 to 18 months of babies’ lifetime.
could save £31 million by reducing maternal breast cancer and supporting exclusive breast feeding from 1 week after birth to 4 months could save at least £11 million every year by reducing three main childhood diseases [16]. However, breastfeeding rates in Vietnam have made very slow improvements in recent years. Data from Multiple Indicator Cluster Surveys (MICS) 2014 show that 96.9% of children under 2 received breast milk at some point in their life, but only 49% were predominantly breastfed for 6 months and even fewer (24.3%) were exclusively breastfed for 6 months. Additionally, 73.7% pregnant women attended Antenatal Care (ANC) at least 4 times, with 93.6% of mothers delivering at a health institution. The rate for C-section delivery remains quite high at 27.5% [4].

The Vietnamese Hospital Quality Assessment Criteria was established to encourage and promote hospitals to conduct activities to improve and enhance the health service quality with an aim to bring satisfaction and safety to patients, people and medical staff [17]. The Hospital Quality Criteria includes 83 criteria and are based on a 5-grade hierarchy, where Grade 3 is considered an acceptable grade and the aim is to have all hospitals in Vietnam reaching a minimum Grade 3. The criteria apply to all hospitals at City, Province and District level, including privately run hospitals. Section E of the Hospital Quality Criteria relates to all Obstetrics and Gynaecology practices. Criteria E1.4 (named E1.4-The hospital conducts communication, training and practice on breastfeeding in compliance with guidelines issued by MOH and UNICEF) incorporates the required BFHI practices, based on 10 steps for successful breastfeeding provided by WHO/UNICEF (Annex 1) [18]. The inclusion of BFHI standards within this system now ensures hospitals commit to implement such services, since the criteria assessment is now mandatory and fully linked with the health system.

The above literature review indicates the importance of breastfeeding and BFHI practices for a developing country as Vietnam and the need for including BFHI requirements within national hospital criteria. However, no empirical studies have been conducted to explore the impact of National Hospital Quality Criteria on implementation of BFHI practices in Vietnam hospitals. The purpose of this practical research is to investigate the effect of the Vietnam Hospital Quality Assessment Criteria in BFHI practices and to study lessons and challenges from the current context to revise these criteria and further strengthen the regulatory environment around breastfeeding protection, promotion and support.

Materials and Methods
A mixed-method (quantitative and qualitative) approach was used to assess the improvements in hospital grading for BFHI criteria within the mandatory national Hospital Quality Assessment Criteria.

Setting and sample
Danang and Ho Chi Minh cities were selected based on their geographical distribution around the country (central and south), and as being large cities with many hospitals, both general hospitals and those specialising in obstetrics or paediatric care. Nine final selected hospitals were selected to ensure a good mixture of levels and types were visited, including provincial hospitals, district hospitals, general and specialist hospitals, and privately owned hospitals (Annex 2). Data were collected from April to September 2016.

Data collection
Quantitative data: Data from the Hospital Quality Criteria database was obtained from the Medical Service Administration under the Ministry of Health. The quantitative data analysed came from the external evaluation data, which was considered slightly more accurate than the self-assessment data.

Qualitative data: Qualitative field visits were conducted to these two locations to assess the level of implementation of the nutrition indicators on the ground and to gain a deeper understanding of the hospital level opinion of these criteria and their impact on the patients. A list of discussion points were created by the UNICEF team based on the details included in the Hospital Quality Criteria for Criteria E1.4 to ensure a full understanding of the implementation was obtained through discussions with hospital leaders, doctors, nurses and patients. The review and discussion points followed the outline of criteria set for BFHI

Annex 1: 10 steps for successful breastfeeding.

10 Steps for successful Breastfeeding:

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of BF.
4. Help mothers initiate BF within half an hour of birth.
5. Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practice rooming-in - that is, allow mothers and infants to remain together - 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats or pacifiers to breastfeeding infants.
10. Foster the establishment of BF support groups and refer mothers to them on discharge from the hospital or clinic.
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Nearby with more capacity, providing antenatal services. The centre does have the capacity to support delivery if needed, but in general people tend to choose other hospitals.

It can be seen from the data that both locations have data higher than the national average, which is consistent with the knowledge that these cities have large urban populations and are well known for higher quality of services at hospitals, often receiving referrals from neighbouring provinces. The improvement since 2013 is immediately apparent, and it would appear that efforts to improve nutrition at these hospitals was markedly scaled up in 2015 when improvements either increased further or were sustained from 2014.

In Danang, all hospitals regardless of their size or speciality, made excellent improvements by 2015, with all those visited reaching Grade 3 and above for Criteria E1.4. In Ho Chi Minh City, smaller hospitals reached higher grades than the larger specialist hospitals for Criteria E1.4. The larger, specialist hospitals, tend to receive more cases of premature or complicated births, and therefore their slower rate of improvement for these criteria is likely due to efforts and resources being diverted to live-saving treatments during and following delivery, reducing the time and resources available to support breastfeeding as well as it should be.

The improvement can also be seen from other countries applying BFHI criteria into hospital policies. The US National Institute for Children’s Health Quality has launched Best Fed Beginning - the nationwide quality improvement initiative to provide coaching on applying Model for Improvement to establish more baby-friendly hospitals. This initiative, which is now implemented in 89 different teams in various hospitals, has helped about 218,000 infants as they are now being delivered in Baby-Friendly hospitals [19]. Ireland also implemented the BFHI National Infant Feeding Policy for all maternity and neonatal units with BFHI practices as the norm and increased the rate of births that took place in baby-friendly maternity and neonatal units with BFHI practices as the norm [2].

### Early initiation of breastfeeding

Under Criteria E1.4, hospitals must actively promote early initiation of breastfeeding post-delivery. This aspect was very well implemented in all hospitals visited in both Danang and Ho Chi Minh City. The improvement in the rate of early initiation

### Data analysis

Quantitative data: Data was analysed using Microsoft Excel to assess changes in results about the improvements in indicators E1.4 and the rate of early initiation of breastfeeding in 2013, 2014 and 2015 assessments nationwide and for selected hospitals.

Qualitative data: Data was reviewed after being collected. Then, all the notes were grouped into main result themes, including: BFHI improvements in general, early initiation of breastfeeding, breastfeeding counselling, breastfeeding support, exclusive breastfeeding, difficulties and challenges. All the qualitative data was displayed in text.

### Results and Discussion

#### BFHI improvements

Quantitative analysis from the Hospital Quality Criteria database showed positive improvements in the BFHI criteria under E1.4 over the last three years. The gradual improvements for Criteria E1.4 from 2013 to 2015 at the national level for Danang and Ho Chi Minh City (Figure 1). The improvements have been positive and steady over the past 3 years, indicating that the importance of breastfeeding is being recognised more since its inclusion in the Hospital Quality Criteria. This also highlights the ease at which this practice can be implemented and improved, due to its low cost and low resource needs. However, the rate is still no higher than 3.5 in Danang - a city considered the top example for breastfeeding support. The improvements to date are good but further work needs to be done in order to bring the national average above Grade 3.

It can be seen from the data that both locations have data higher than the national average, which is consistent with
of breastfeeding in Ho Chi Minh City, clearly showing the marked and sustained improvement in 2013, coinciding with the mandatory inclusion within the Hospital Quality Criteria (Figure 2). 100% of hospitals visited verbally reported that they have received training on the Early Essential Newborn Care practices (EENC – i) delayed cord clamping, ii) skin-to-skin contact, iii) kangaroo mother care for preterm babies, iv) early initiation of breastfeeding), and that they endeavour to implement for all births. Hospitals noted that since receiving training on this, it was relatively simple to implement the interventions, since they are low cost and simply require trained, committed staff. In Bolivia, the percentage of infants breastfeeding within one hour of birth increased from 39% in 1998 to 78% in 2012 after implementing stricter BFHI criteria in primary level health facilities in 2006 [2]. The two big hospitals in Kuwait, where 20% of births in the country take place, have shown positive

### Annex 3: Details for review during Assessment of Criteria E1.4 for breastfeeding.

<table>
<thead>
<tr>
<th>E1.4</th>
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<tbody>
<tr>
<td>The hospital conducts communication, training and practice on breastfeeding in compliance with guidelines issued by MOH and UNICEF</td>
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</table>

#### Pursuant recommendations and implications
- Decree No. 21/2006/ND-CP dated 27/2/2006 of the Government on trading breast milk substitution
- Breast milk is impartial nutrition source for neonate and babies. Breastfeeding practiced around the world has saved 1.5 million children from death, reducing infant mortality rate by 2 – 3 times, reducing diarrhea among children by 14 times. According to joint WHO/UNICEF (1989) declaration, it is necessary to protect, enhance and support breastfeeding practice.
- Ten steps for successful breastfeeding practice are the summary of key recommendations. They are also the basis for development of Child friendly hospitals.

#### Grades of quality

**Grade 1**
1. No awareness or no implementation of breastfeeding guidelines in compliance with documents from MOH and UNICEF.
2. During the year, detection of violations of stipulations in Decree No. 21/2006/ND-CP dated 27/2/2006 of the Government on trading breast milk substitution has been made.
3. Failure to meet one of the sub-sections from 4 to 5.

**Grade 2**
4. There is a regulation on implementation of 10 steps for successful breastfeeding, which is written in simple language, easy to understand for practitioners involved in MCH care, and be available in visible places.
5. The Ob/Ped department provides communication, guidelines to mothers not to use formula milk for children under 24 months of age unless doctor’s instruction is given.

**Grade 3**
6. Achievement of all sub-sections from 4 to 5.
7. Staff in Ob/Ped dept. trained on counseling and support breastfeeding account for 50% and more.
8. There are billboards, posters on breastfeeding communication.
9. Health staff providing counseling on breastfeeding have attended training and got certificate of having knowledge and methods of counseling for pregnant women.
10. Mothers giving birth and staying with their neonates 24 hours/day account for 70% (except for those cases with indication of doctors not to be staying with the neonate).
11. Healthy newborns who could have “skin-to-skin” contact with the mother and receive early breastfeeding within the first hour after birth account for 70%.

**Grade 4**
12. Achievement of all sub-sections from 6 to 11.
13. There are medical personnel consultants in charge, having attended workshops / training in breastfeeding and having certificates (of knowledge and methods for pregnant women advisory)
14. Training courses on pre-delivery care are held for pregnant women with contents of breastfeeding and “skin-to-skin” contact method.
15. Women with the first trimester pregnancy visiting hospital for pregnancy check are given free counseling service on breastfeeding
16. Post-delivery mothers receiving counseling and assistance on correct breastfeeding by the health staff account for 80% and more among those mothers giving birth at the hospital.
17. The group for giving assistance to mothers on breastfeeding is established and put into operation.
18. Mothers giving birth and staying with their neonates 24 hours/day account for 80% (except for those cases with doctors’ instruction not to be staying with the neonate).
19. Healthy newborns who could have “skin-to-skin” contact with the mother and receive early breastfeeding within the first hour after birth account for 80%.
20. Application of the "slow umbilical cord removal method" at the hospitals (as recommended by the WHO and UNICEF)
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The trends in the early breastfeeding initiation after including BFHI accreditation. Furthermore, Taiban private hospital in Kuwait experienced a remarkable growth in early breastfeeding from 50% in 2014 to 100% in 2015 [20].

The major constraint preventing all hospitals from implementing early initiation of breastfeeding and skin-to-skin contact for 100% of births relates to C-section deliveries, in that babies are often away from their mother for some time after delivery, which was mentioned by other authors [21-23]. Whilst the staff reported C-section delivery as a challenge for supporting early initiation of breastfeeding, the data from Danang shows positive and high rates at 95% for vaginal delivery, 81% for C-section delivery, and 87% for all newborns [24]. In Tu Du Obstetric Hospital in Ho Chi Minh City, staff noted that following a C-section delivery, the operation room is too cold for the newborn babies so they

<table>
<thead>
<tr>
<th>Grade 5</th>
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<tbody>
<tr>
<td>21. Achievement of all sub-sections from 12 to 20</td>
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<tr>
<td>22. Newborns at the Ob department are given exclusive breastfeeding (no other foods, including water), except those cases being given indication by the doctor such as:</td>
</tr>
<tr>
<td>– Newborns of the severely ill mothers who could not practice breastfeeding or breast milk is unable to get.</td>
</tr>
<tr>
<td>– Newborns of the mother who is under radiological treatment or using drugs that are not indicated for breastfeeding such as anti-cancer drugs or anti-thyroid drugs, etc.</td>
</tr>
<tr>
<td>– Newborns suffering from metabolism diseases that could not tolerate breast milk.</td>
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<tr>
<td>23. Mothers giving birth and staying with their neonates 24 hour/day account for 95% (except for those cases with indication of doctors not to be staying with the neonate).</td>
</tr>
<tr>
<td>24. Healthy newborns who could have “skin-to-skin” contact with the mother and receive early breastfeeding within the first hour after birth account for 90%.</td>
</tr>
<tr>
<td>25. Newborns from C-section cases are given early breastfeeding within the first hour after birth account for 70% and more.</td>
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**Figure 1:** Improvement in indicator.

**Figure 2:** Rate of early initiation of breastfeeding in Ho Chi Minh City.
Breastfeeding counselling during pregnancy

Because of the importance of counselling for woman during pregnancy and postpartum, many countries include these indicators into critical requirement for certificating baby-friendly hospitals. In 2015, the National Health and Family Planning Commission of China released the criteria for pediatric hospitals to be certificated as baby-friendly, and one among the six criteria is setting up a breastfeeding hotline and counselling clinics [2]. Kenya and Saudi Arab also reported that the lack of counselling skills and knowledge is a big challenge in implementing BFHI indicators [2,25]. In Vietnam, breastfeeding counselling and support is a much stronger requirement for hospitals to reach Grade 4 or 5 under Criteria E1.4. For Grade 3, there must simply be staff trained on counselling, but to reach higher grades there must be evidence of mothers receiving counselling during their pregnancy and receiving support post-delivery. The data also shows that a number of hospitals in Ho Chi Minh City and Danang have achieved Grade 4 or 5 status already. From the hospital visits, evidence of such counselling was observed; however, the quality and effectiveness was more questionable. All health staff reported that breastfeeding counselling is included as part of mothers ANC visits, but responses from mothers themselves varied. Some post-delivery mothers reported that the only time they received information on exclusive breastfeeding was during the support for early initiation of breastfeeding post-delivery. Other mothers reported that they had received counselling during their ANC visits, but when asked specific details they were unable to correctly answer the questions. Some mothers who were delivering their second child noted that they had received much more information and better care this time compared to their first delivery and they felt more prepared to correctly care for their child now. These mixed reports from the mothers suggests a recommendation that ANC visits need to incorporate more intensive counselling on exclusive breastfeeding for mothers to ensure all mothers are equipped with the knowledge and skills to choose to breastfeed once their baby is born.

Breastfeeding support post-delivery

Within Criteria E1.4, mothers must receive support for early initiation of breastfeeding and support on correct breastfeeding post-delivery in order to reach Grade 4 or Grade 5. Post-delivery support for breastfeeding was reported as strong from senior management and staff and observations during hospital visits. Active support for breastfeeding post-delivery during the mother’s stay in hospital was also well observed. At Hai Chau district hospital in Danang, we observed health staff supporting mothers with breastfeeding issues on the ward. At Hung Vuong Obstetric Hospital, Ho Chi Minh City, mothers were given detailed personal support for breastfeeding at their beds in specialised wards only for women at the same stage post-delivery. In the Kangaroo mother care ward for premature babies at Tu Du Obstetric hospital, there was also evidence of breastfeeding support and tube feeding of mother’s expressed milk. Mothers in the lactation room at Phu San Mekong Hospital were also receiving personal support during our visit. Overall, the commitment to breastfeeding support during the mother’s stay at hospital post-delivery appears very strong at hospitals at all levels, and correlates with the high rates for early initiation of breastfeeding in both Danang (87%) and Ho Chi Minh City (59%) [24,26]. The correlation of this support with continued breastfeeding after discharge is not fully clear.

Exclusive breastfeeding

As shown in a Brazil study, the median duration of exclusive breastfeeding in BFHI hospital is 60 days, which is higher compared to 48 days in a non-BFHI hospital [27]. In Vietnam, to achieve a Grade 5 rating on Criteria E1.4, newborns at the obstetric department must be exclusively breastfeed, with the exception of certain cases where mothers are ill or the baby has a metabolic disorder. It is difficult for hospitals to reach this grade level, primarily due to the number of C-section deliveries reducing the percentage of births receiving the recommended care. Other hospitals, notably Phu San Nhi and Phu Nu private hospital in Danang, established a system of breast milk expression and storage to feed newborns when mothers are unable to breastfeed, immediately following delivery. In this case, mothers with excess milk to spare can express their milk and donate it to feed children who have no breast milk of their own. They claim to attribute this breast milk sharing scheme to their high rates of early breastfeeding (reported as almost 100%), along with their strong continued support system. In Ho Chi Minh City, Hung Vuong Hospital has attempted to establish a similar milk banking system, but due to a lack of clear guidance on how to ensure the safety of milk for sharing from one mother to another mother’s child, they can currently only store milk for the mother’s own child. These expressed milk storage schemes are extremely beneficial to support mothers in exclusive breastfeeding, since their husbands or family members can easily feed the milk to the baby even if the mother is tired or unwell. The Human Milk Banking was founded by many other countries such as Japan, Norway, America, Korea, etc and Vietnamese MOH can learn from this and take action as a result. Further guidance on safety and minimum standards...
from MOH will contribute to promote milk banking schemes to help improve early breastfeeding rates in Vietnam [28-32].

**Conclusion and recommendation**

UNICEF and WHO now recommends that all hospitals should incorporate the BFHI criteria into their hospital quality accreditation systems, which has been implemented in Vietnam with the National Hospital Quality Criteria from 2013 [2]. The general trends observed from the official Hospital Quality Criteria data showed improvements in hospital-level commitment and support for breastfeeding since the mandatory enforcement of the Hospital Quality Criteria. The low-cost EENC interventions were implemented in many of the visited hospitals and these were reported to be key factors in improving breastfeeding among mothers, particularly for facilitating early initiation of breastfeeding. The inclusions of these EENC interventions under the Hospital Quality Criteria would further strengthen the commitment and investment from senior management level to train all staff and implement the interventions fully; working towards further improving survival rates and supporting appropriate development of the child right from birth.

To further improve hospital ratings on BFHI practices as indicated in the Hospital Quality Criteria, stronger mechanisms between hospital departments and between hospitals and the community need to be made. It was commonly reported that a main reason why early initiation of breastfeeding was sometimes challenging was due to a lack of staff trained on correct EENC practices following a C-Section delivery. This can be addressed through stronger mechanisms to train and link all departments within the hospital at all stages involved in obstetric care, delivery and newborn care, so all staff are trained and can easily implement and support skin-to-skin contact. In line with the recommendation above, the inclusion of EENC within the Hospital Quality Criteria as a mandatory service would further encourage hospitals to establish such a mechanism. Mothers should also be educated and encouraged to deliver by natural methods rather than choosing a C-section delivery. The second mechanism recommended is to strengthen the linkage between the available supports at hospital level with the community support for breastfeeding. If breastfeeding counselling and support can be included within the Hospital Quality Criteria as a mandatory function, this would also work towards improving exclusive breastfeeding rates in the country.

The key recommendations from this case report are listed in (Annex 4).

**Acknowledgement**

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ADDRESS OF CORRESPONDENCE: Luong Duong Huy, Division of Quality Management, Vietnam Administration of Medical Services, Ministry of Health, Vietnam, Tel: +84915363369; E-mail: dr.luong.vn@gmail.com

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