EMR/SEAR MEETING ON THE PREVENTION OF NEONATAL TETANUS

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PROVISIONAL REPORT

STRATEGIES FOR THE CONTROL OF NEONATAL TETANUS

Targets

In most developing countries, it should be feasible to attain by 1990 an incidence of death from neonatal tetanus of than one death per 1000 live births. This rate refers not only to national averages, but also to the situation within each significant administrative sub-division within each country. A goal of zero deaths is suggested for the year 2000. Countries now experiencing neonatal tetanus deaths should consider including them among their indicator for monitoring progress in achieving "Health for All by the Year 2000". For many such countries, the goal of zero deaths should be feasible considerably before the year 2000.

IMMUNIZATION

Target groups

Two main target groups are identified : Pregnent women and women of child-bearing age attending health centres for any reason.

The pregnant women's immunization can be effective measure in controlling neonatal tetanus in areas where large part of pregnant women seek prenatal care and report to health service centres reasonably early in the pregnancy to be given two spaced doses of tetanus toxoid and to acquire protective antitoxin levels. Such policy should be considered as a long-term programme of routine immunization.

However, it is know that in many countries the coverage of pregnant women's immunization is very low. The meeting considers therefore that females in child-bearing age visiting any governmental or non-governmental health setting, bringing their children for immunization, attending with them to MCH clinics, or seeking health care in hospitals or out-patient clinics for any reason, should be offered to be immunized with tetanus toxoid.

The meeting considered also that whenever it is feasible and necessary, immunization with tetanus toxoid could be performed through outreach clinic for women attending big congregations like markets, or festivals. This approach the meeting considered of the second priority, however.

Schedule of Immunization

For previously unimmunized women, two doses of an adsorbed tetanus toxoid, meeting WHO requirements, should be administered. They should be spaced at least 4 weeks apart with the second dose at least 2 weeks before delivery.

Although additional doses may be given with succeeding pregnancies, children will be protected in the neonatal period if mothers have received a third dose within 5 years, or a fourth dose within 10 years. A fifth dose is likely to provide lifetime protection

For women previously immunized, immunization with 1 dose during the current pregnancy is recommended unless it is documented that at least a third dose of T.T. (or DPT or Td) has been given within the previous five years.

Quality of tetanus toxoid

Steps should be taken to ensure that only vaccines fulfilling WHO requirements are used in the programme.

The meeting recognized that it would be easiest to reach women who had ready access to health services, such as women residing in urban areas and those attending school. All providers of health services should be sensitized to the need to immunize women in the priority groups, taking advantage of their visits for other purposes. General public information and promotional campaigns to encourage the acceptance of T.T. immunization of women in the priority groups were suggested.

Although services might be easiest to deliver in the urban areas, the rural areas contain most of the population and generally have the highest incidence rates of neonatal tetanus. Although some rural populations could be covered using outreach services from hospitals and health centres, many rural areas could not, at

this time, be covered in this way. Although mobile teams might have to be considered for reaching them, the difficulties of cost, availability of fuel and the maintenance of vehicles were recognized. Mobile teams should ideally be multi-purpose providing a core of the primary health care services of highest relevance to the communities in question. Under certain circumstances, tetanus immunization of the entire population might be envisaged. In rural areas, every advantage should be taken of all workers sho could support the programmes, as, for example, malaria workers, lady health visitors, and sanitary inspectors. It was noted that the relative heat stability of tetanus toxoid might permit it to be used under circumstances where the cold chain was not yet sufficiently developed to permit the use of the other EPI vaccines, but also noted that even this vaccine could be quickly destroyed at high temperatures (above 55°C).

The role of mass campaigns

Although we do not recommend mass campaigns as a generally applicable strategy, we acknowledge that there may be certain countries where this can rationally be implemented, e.g. where there is already mass campaigns such as for yellow fever vaccination in West Africa; or where the government is convinced that it can achieve very high coverage and maintain the level afterwards and that this will be cost-effective.

In countries where it is feasible, evidence of tetanus immunization could be made a requirement of necessary marriage certificate.

For all people, male or female, it should be re-emphasized that care of wounds or injuries should include not only disinfection but the administration of tetanus toxoid in all cases where there is reason to believe the person has been previously immunized. Antitoxin should be reserved only for those who were not immunized, and even with this tetanus toxoid 2 doses should be given.

STRATEGIES

General strategies

Obtain national commitment to achieving the control at neonatal tetanus. This should be reflected in part by including tetanus among the notifiable disease and by including a specific category for neonatal tetanus.

Recognizing the inadequacies of current information on neonatal tetanus available through the routine reporting systems, emphasis should be placed on conducting sample surveys to define baseline incidence and on the development of sentinal reporting sites to monitor the impact of prevention strategies.

Countries should develop plans for the control of this disease which take into account the specific risk factors existing within that country and which specify a disease reduction target and date. National commitment should extend beyond the Ministry of Health, as help from other Ministries will be needed, as for example, the help of the Ministry of Education in sensitizing teachers and pupils to this problem, and the Ministry of Information in promoting general information and education.

Promote health education in support of the national strategy for neonatal tetanus prevention.

The target of the education is essentially the mother. However, she can be reached both directly by health staff at centres and indirectly some of the important possible agents of this could be:

(1) The husband. (2) The TBA. (3) School children.
(4) Religious and other local leaders or volunteers.
(5) The mass media.

Seek the participation of the community in controlling this disease. Specific information concerning neonatal tetanus should be given to community leaders (including religious leaders) and their help should be sought in teaching birth attendants and mothers to recognize cases of neonatal tetanus, to make them aware that it is a major killer of newborns and that it can be prevented by (1) immunizing the mohters prior to delivery, (2) assuring that the delivery is carried out and the cord cut under clean conditions, and (3) by assuring that no unclean dressings are placed on the cord

while it is healing. In West Africa, it was noted that some communities had improved infant survival by providing shelters where mother and child could stay until the cord healed, under the supervision of a TBA.

Involvement of the community in the prevention of neonatal tetanus is most likely to be effective where this is promoted within the general approach of primary health care, and where strong links have already been established between the community, represented by a village health or development committee, and the health providers, represented by the voluntary and professional health workers.

Improved Maternity Care

It is recognized that improved maternity care has a vital role to play in reduction of neonatal tetanus as well as much more than that in reduction of neonatal mortality and morbidity and maternal morbidity and mortality.

All countries with high neonatal tetanus rates are also countries where a large proportion of women are delivered by untrained unsupervised TBAs. Official policy of governments should aim to increase the percentage of deliveries attended by trained persons, with an ultimate goal to achieve 100% coverage.

All governments should favourably consider the registration of all TBAs so that training can begin with emphasis on referral of high risk cases, safe delivery, and adequate hygiene including care of the cord; and attach them to health teams. In brief, the sequence should be:

(1) Register TBAs
(2) Train them at the most peripheral point feasible.
(3) Equip and supply them appropriately.
(4) Link or attach them to the health team.
(5) Supervise and support them.
(6) Give them refresher training.
(7) Renew registration periodically.
(8) Evaluation of the training and performance.

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Training should constitute:

(a) Evaluation of the efficiency of training given to already acting midwives should be performed.

(b) Setting training objectives, evolving suitable strategy of training and preparing relevant training materials for midwives and TBAs including technical manual.

Supervision

Supervision of governments should strengthen the MCH or basic health service network of centres and trained staff such that every ten TBAs have supportive superivision from a nurse or midwife.

Similar supervision should be provided also for assistant or village midwives or TBAs who are already trained, and not only to newly-trained TBAs.

The nurse midwives themselves require and desire supportive supervision and retraining. This should be organized in a regular and systematic manner, with a standard format report on every visit made, by the officer from the provincial, district or central level.

Involvement of hospitals

Improve the involvement of hospitals in the prevention of neonatal tetanus. Hospitals have a major role to play in providing immunization services within the hospital itself, in providing outreach primary health care and in providing training, supervision and backup referral services for peripheral workers. Directors of the relevant hospital departments should be actively involved in the prevention of neonatal tetanus.

Involve other traditional healers in the prevention of neonatal tetanus as appropriate. An example would be barbers, who might be involved with circumcision, ear piercing or tattooing.

Health staff motivation

The group consider that it is very important for the progress of the programme to undertake continuous efforts in motivating the health staff on every level.

The Environment

It is acknowledged that the keeping of cattle and horses in or near the house is an essential part of the rural economy in many countries of our regions, and that change will come only gradually. However, there are a few situations in towns of our regions where it is possible to forbid the stabling of horses or cows overnight within the municipal limits.

Research

The research is needed in:

(1) Development of safe adjuvants, and more potent tetanus toxoid.

(2) Factors influencing the acceptance of tetanus toxoid by the community.

(3) Epidemiology of neonatal tetanus (role of circumcision for example, identification of high risk groups.

Appropriate surveillance sentinal centres should be identified who will map the distribution of the origin of the cases, so that by means of outreach or house-to-house programmes efforts can be concentrated in these localities.

Resources

Much can be accomplished using existing resources, but additional resources will be needed to achieve satisfactory control of this disease, as these are needed for the EPI and for Primary Health Care as a whole. As evidenced by the coverage rates now being achieved in children, vaccines were already being made accessible to significant proportions of the population and without increased resources, immunization rates among pregnant women and women of child-bearing age should be able to be brought close to those for children. But, in addition to the additional resources needed to increase the general coverage of immunization services, some special additional investments for neonatal tetanus prevention are also needed. These include the development of special health education and promotional materials concerning this disease, investments in additional epidemiological

studies to better define high risk women, and evaluations of neonatal tetanus prevention initiatives so the most successful and cost-effective approaches can be identified and promoted.

Constraints and obstacles to be overcome

It can be anticipated that constraints and obstacles similar to those in other health programmes will be found:

(a) Inadequate system of supervision of the programme.
(b) Lack of coordination between other health programmes.
(c) Lack of staff motivation.
(d) Poor community participation.

A major problem at present is that neither the medical professional staff nor the public at large is aware of the extent of the problem of neonatal tetanus nor is committed to its control. A big job of information/education remains to be done, and governments will need to identify specific resources to do it. This will be best done in the context of efforts to sensitize the public to other related issues, such as the importance of the immunization of children and the importance of prenatal care of mothers.

Promotion of the prevention of neonatal tetanus should accompany promotion of the approach of primary health care in general. The control of neonatal tetanus and of other diseases included within the EPI can and should be used as an opening wedge in the developing of primary health care.

Identification of immunized women

The meeting concluded that the identification of immunized women using a card retained by them, was highly desirable as a tool of programme management and evaluation, as an aide for health education of the mother and as a safety measure to assure women were not excessively immunized.

Where home-based mothers' card or family health record was in the possession of the women immunized, this should serve as the record. Otherwise a special card could be issued. Immunization cards should be made widely available for use by private physicians as well as for use in the public sector.