INSTRUCTIONS
ON ORGANIZATION AND IMPLEMENTATION OF
PREVENTIVE AND ANTI-EPIDEMIC ACTIVITIES AT OBSTERTRIC INPATIENT
HEALTH CARE FACILITIES
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HEALTH CARE FACILITIES


Nosocomial and hospital infection is the infection of pregnant, women in delivery or newborn observed during the treatment course or after the discharge of the hospital or in the period corresponding to the latent phase which was absent at the admission or prior to that as well as any infectious disease of the medical staff which the latter acquired during the course of the professional activity irrespective of the time of the detection of the signs (inside or outside the hospital).

At all phases of the medical science development as well as at present times the problems of preventing nosocomial infection (NI) is regarded as one of the urgent problems since their wide spread and high rates of the cases still do not demonstrate the tendency of decline. The latter is conditioned as with breach of the anti-epidemic regimes at the medical facilities and aseptic and anti-septic rules as well the frequency medical interventions and decline of the immunological response of the population.

The infection finds its most fertile environment for the expansion among the economically week and socially vulnerable groups.

In Armenia, in particular it is regarded as a priority in the sphere of the birth care where the new provisions of the World Health Organization (WHO) on the safe maternity were introduced during the recent years. Their introduction fundamentally changed the principles of the existing health care, which in its turn requires immense reshaping of the anti-epidemic control and NI prevention.

Taking into account the aforementioned, the imperative requirement of the present birth care system is to reconsider the soviet Decrees prepared in 90-s and to develop
scientifically proved and evidence-proved NI prevention new program in accord with the WHO provisions.

NI high morbidity rates are conditioned with the following complex of factors:

- Development of the resistant hospital NI pathogenic agents strains;
- High susceptibility of infections conditioned with the immunological depression status of pregnant, women in labor and newborn;
- Restricted material-technical capacities of many maternity facilities;
- NI expansion is due to the wide variety of NI pathogenic strains and unfavorable factors of the external environment, including ultra-violet radiation, dryness, and development of high resistant pathogenic strain towards many medications.

*NI may be transferred in various ways*, however the most frequent infections at hospitals are as follows:

- Contagious, including hemeo-contact;
- Aerobe, aerobe-capillary;
- Transfer of infection through food and water.

At present it is necessary to pay greater attention to the introduction of the new technologies (centralized sterilizing divisions, disinfection cameras) as well as application of ecologically safer disinfection means, disposable tools to prevent NI and to ensure security of patients and the staff. The sterilization monitoring plays a great role in the NI preventive complex activities as well as new approaches of the WHO, in particular following in –room mother and child principle, 10 steps of the baby friendly hospitals (Appendix 1), introduction of early discharge of women after delivery and etc.

2. Organizational Activities

2.1 The obstetric inpatient facilities are implementing their operations in accord with functions defined for each level (I, II, III), and the license on performing specific types of activities.

2.2 The head of the maternity facility (department) is responsible for the organization and implementation of NI preventive complex sanitary-epidemic activities.

2.3 The structure of obstetric inpatient facility foresees the post of physician-epidemiologist and in case of maternity hospitals – its responsibilities are carried out by the deputy. In case of absence of the physician-epidemiologist, the responsibilities are carried out by the Deputy on Health Care Issues.
2.4 It is necessary to establish a NI supervision program to coordinate NI preventive and anti-epidemic activities, for the implementation of which following the Decree of the Head of the facility a NI control commission (group) presided by physician-epidemiologist or Deputy on Health Care Issues should be established according to the peculiarities of the obstetric inpatient facility.

2.5 NI anti-epidemic supervision program should be adapted to the peculiarities of the given obstetric inpatient facility which are conditioned with the micro ecological securities peculiarities, variety of NI hospital microbes, density of epidemiological contagious contacts and etc (The ways and methods of the anti-epidemic supervision as well as the policy of the Commission, administrative functions to prevent infections are presented in Appendices 2 and 3).

2.6 NI prevention commissions include managers of the structural divisions, physician-epidemiologist, chief midwife, microbiologist, pathanatomist, pharmacist, and engineer. Other specialists are invited upon necessity in compliance with the objectives of the control program.

2.7 The sessions of the NI prevention commission are conducted at least once per quarter as well as in case of arising problems connected with anti-epidemic issues and with the purpose of regulating epidemiological situation upon the discretion of the Chairman.

2.8. NI commission, in the composition of which in addition the Chief physician (head) and the trade union chairman are involved, carry out the steps securing continuous training of the existing work principles, decrees and instructions and testing of the theoretical knowledge and its accurate application in practice.

3. Recruitment Procedure

3.1 The provider who is recruited to the maternity hospital (ob/gynecological department) should undergo initial and periodical medical examination pursuant to the Procedure approved by the GOA Decision N 347 on “Obligatory Initial (at the recruitment) and Periodical Medical Examination” from 27.03.03.

3.2 Sick health providers of obstetric inpatient facilities having fever, inflammatory diseases, purulent and intestinal signs should not be permitted to work temporarily (however, their salaries are preserved).
3.3 Maternity hospital (department) staff should be immunized against Virus Hepatitis B, while diphtheria vaccination should be performed according to the national schedule if the data on prevalence of the disease are not available.

3.4 The data regarding the periodical medical examination, treatment results, and preventive vaccinations should be recorded according to the defined order in the sanitarian card of the provider (the person responsible for coordination and implementation of NI prevention activities should be notified).

3.5 A separate entrance is foreseen for the providers, and a cloakroom for the outer clothes. The cloakroom should have two sections with individual boxes for the personal and medical uniforms. The latter should be changed every day.

4. Organization of Epidemiological Regime in Obstetrics Inpatient Facilities

4.1 According to the evidence-based data the previously exercised separation of the obstetric inpatient facilities into the physiological and obstetric has not justified itself since all pregnant and women in delivery should be regarded as potential virus carriers and comprehensive preventive and common measures should be applied for everyone.

4.2. The necessary epidemiological atmosphere of the maternity should be secured in accord with procedures on “Infection Expansion Precaution Comprehensive and Standard Measures” and “Infection Transfer Preventing Measures” (Appendix 4).

4.3. All departments should bear masks in case of unfavorable epidemiological situations (aerobic, aerobic-capillary). It is desirable to use disposal paper masks.

4.4. The discharge from maternity hospital is defined according to the assessment of the health status of the mother and child and socio-economic conditions at home. The discharge should not be conditioned only with the weight of the baby. Early discharge (on 2nd or 4th day after delivery) is permitted, even if umbilicus has not been dropped, since the early discharge contributes to prevention of NI.

4.5. In case of complicated obstetrics-gynecological history (miscarriages, gentiles’ inflammatory diseases of women, and others) or complicated delivery (large fetus, twins, hydroamnion, postpartum bleeding and others) early discharge (on 2nd –4th day after delivery) is permissible only when clinical data and ultrasound examination do not detect any disorders.

In case of surgical delivery, including cesarean section, the discharge is based on clinical criteria.
4.6. To ensure provision of a patronage care after discharge from maternity hospital it is necessary to inform out-patient care providers about the mother and child.

4.7. Spouse and relatives are permitted to visit pregnant and women in delivery. The visiting procedure is defined by the management of the maternity hospital (department).

4.8. The presence of the spouse (close relatives) during the labor is possible only under certain conditions: individual labor rooms, absence of infectious diseases (acute respiratory infections and others), upon the permission of the doctor treating a woman and the desire of a woman. Relatives present in labor rooms should wear clean clothes (gowns and medical shoes).

5. **Housekeeping Procedure of Structural Subdivisions at Obstetrics Inpatient Facilities**

5.1 **General Provisions**

5.1.1. All departments of obstetrics inpatient facilities should be wet cleaned by cleaning/disinfection means following the two bucket method every day (Appendix 5).

5.1.2. Prior and after each procedure the staff should wash carefully the hands (Appendix 6), and if necessary use the appropriate gloves (Appendix 7).

5.1.5. All medical tools and other items used during a woman’s examination, treatment, and procedures should be processed according to the established procedures (Appendix 8).

5.1.6 Sorting and disposal of the waste at the obstetric inpatient facilities is conducted according to the requirements set forth in Appendix 9, and the contaminated medical and biological waste are collected and destroyed according to the special procedure (Appendix 10).

5.1.7 The used linen is collected in the plastic bags, and then removed to the laundry for the disinfection and washing (Appendix 11).

5.2 **Reception**

5.2.1 When the pregnant woman comes to the maternity hospital (department) the issue of sending her to the general obstetric department or the separate ward or room is defined based on data recorded in her exchange card, and results of the questions asked and examinations (Appendix 12).

5.2.2. At the admission of a woman in delivery an examination, and if necessary sanitary procedures, are carried out. It is not permitted to remove the hair through shaving, in
case of necessity it should be done with scissors. Enema should be provided only upon a
woman’s request or presence of the clinical signs. Pregnant women are admitted in their
personal clothes, slippers, and personal hygiene items. They should be clean and washed
thoroughly.

5.3 Delivery Department

5.3.1. It is desirable to have individual delivery wards comprised of one or several
rooms which will enable woman in delivery to stay at the individual delivery ward without
being moved to other rooms during the labor and postpartum period before the discharge.

5.3.2. It is permitted to use mattresses with hermetic cover, which should be
disinfected with antiseptic solutions (Appendix 8).

5.3.3. If there is one common delivery ward labors should be managed in a sequence
on the separate chairs/tables.

5.3.4. The labor should be carried out in individual or isolated rooms upon the
woman’s desire; the same refers to the presence of the spouse or close relative.

5.3.5. The clean conditions for the labor at the delivery room should be secured
ensuring the following principle:

- clean hands;
- sterilized gloves;
- clean perineum;
- clean surfaces.

It is desirable to use disposable or sterile supplies during each labor.

5.3.6. The first stage of labor should be maintained in the clean conditions while the
second and third stages in the sterile conditions. The used instruments and all bandaging
materials should be sterilized.

5.3.7. To ensure security of providers it is recommended to use protective (shielding)
measures at the delivery wards: caps, eye wears, face shields, plastic aprons and gum shoes to
avoid fetal waters and other biological secretions.

To make safer use of the sharps it is necessary to follow the requirements set forth in
Appendix 13.

5.3.8. The initial treatment of newborns should be conducted using sterile individual
packs, and in case the mucous suction from newborns’ airways is required, disposable or
HLD forceps or clamps should be used. Their disinfection is conducted according to the requirements set forth in Appendix 8.

5.3.9. The skin of the newborn should be dried immediately after the birth with a warmed cloth, which may be warmed under the lamp of the baby table.

In case of absence of the contra-indicators the newborn should be covered with warm cloth and put on the mother’s breast securing skin-to-skin, eye-to-eye contact at least during the first half an hour at the delivery ward.

If the temperature of the delivery ward is lower than 25°C, the mother and newborn should be covered with the warm quilt. Immediate contact of the newborn with mother’s breast and breastfeeding stimulate development of normal bacterial flora of the newborn, reduction of the bleeding, uterine contractions as well as increases the complex of the protective non-specific factors of the body.

5.3.10. The umbilical cord of the newborn should be caught and tied with the sterilized tools and bandages. In the following days the remaining umbilical cord should not be processed and covered. It is necessary to treat with antibiotics if the remaining umbilical supptutates and the surrounding skin get red and emit a smell.

The principles of maintaining the remaining umbilical cord are: dry, clean and open. The remaining umbilical cord will dry off in contacting with air and mummified without processing and bandaging.

5.3.11. Blenorea (gonococcus or chlamydeous) prevention is conducted by 1% tetracycline or 0, 5% erythromycin smear. If these are lacking it is permitted to use 30% sodium sulphate (albutsid) solution. The use of the 1% silver nitrate is not advised since they cause chemical conjunctivae.

5.3.12. After weighing and dressing the newborn (wrapping, especially the tight wrapping is not recommended), resuscitation table and weighting scale should be disinfected. The newborn’s fluids and placenta as well as all instruments used in providing primary care to the newborn should be disinfected according to Appendix 8.

5.3.13. The bed linen should be changed every three day, the towel and gown every day as well as when they got contaminated. The clamps are changed according to the desire of the women until they are soaked completely.

5.4. Mother and Child Postpartum Department

5.4.1. All types of beds in postpartum department of the maternity hospital should be placed in rooms so that a mother and child can stay together in one room.
It has certain advantages as compared when mother and child are staying in separate rooms.

- Decreases the risk of nosocomial infection cases in women delivered and newborns;
- Decreases the frequency of the contact of the hospital staff with the newborn;
- Decreases circulation of hospital microorganisms;
- Colonization of the newborn with different microbes is mainly conducted through the strains of the mother;
- Stimulates accumulation of milk, a psychological-emotional contact/galacto-poetic effect is enhanced between the mother and child.

5.4.2. One or two-bed or individual rooms or intensive care wards or semi-ward type rooms should be allocated for the mother and child to stay together.

5.4.3. There are almost no contradictions for a mother and child to stay together in one room. A decision on the separate stay is defined in exceptional cases when the mother has active phase of the lung tuberculosis or the condition of the mother does not allow her to take care of the child (unconscious coma, mental diseases, non satisfactory status of the vitally important functions in the de-compensated phase) as well as in all cases when the newborn requires intensive care and treatment, which should be made by an obstetrician-gynecologist and neonatologist.

5.4.4. Regardless of whether a mother and child stay together or in separate departments (rooms), breastfeeding should be done upon newborn “request”. Regardless of whether a mother and child stay together or in separate departments (rooms), it is necessary to follow 10 main steps of “Baby friendly hospital” (Appendix 1).

5.4.5. The use of adapted formulas is permitted only in separate cases when the breastfeeding is not possible (abandoned children, agalaktia, HIV, cytotatics, the usage of antitiroid vaccination by mother);

5.4.6. It is desirable to use “liberal” wrapping principle, a newborn should be dressed in shirt, cap, toddlers, and pampers.

5.4.7. All medical items and instruments used during the newborn care (including eye pipettes, staples, and others) should be disinfected and sterilized (Appendix 8).

5.4.8 After the woman and newborn are discharged from the hospital, the room should be cleaned and disinfected according to the general method, and the bed items should be processed by camera disinfection if possible (Appendix 8).
5.4.9 Taken into account that at present endoscopic technical means are applied at maternity facilities for diagnosis and treatment, Appendix 14 describes their disinfection and washing procedures.

5.5. Newborn Intensive Care and Reanimation Department

5.5.1. Newborn intensive care and reanimation department should be kept clean and all measures foreseen to prevent contagious, aerobic and aerobic-capillary infections should be conducted (Appendix 1).

5.5.2. It is necessary to maintain aseptic conditions during the invasive medical procedures: a cap, mask, sterilized gloves and instruments should be used. It is permitted for mothers to participate in the newborn care and breastfeeding at maternities (departments).

5.5.3. It is obligatory to use cap, mask, sterilized gloves and instruments in performing invasive procedures during the intensive care of newborn (blood transfer, cathetering of umbilical vein, spinal cord puncture and etc.).

5.5.4. Small packed and/or disposable medications should be applied for newborns.

5.5.5. The sterile cotton swabs used for procedures should be kept in special boxes packed separately. The packs taken off the boxes that were not used are subject to repeated sterilization. The sterile items should be held by sterile forceps which should be changed before each procedure with the newborn. It is permitted to use sterile forceps which were kept in closed and dry boxes.

5.5.6. There is no need to have a room for the breast milk collection and storage since it is prohibited to collect and pasteurize donor milk and feed other newborns. In case the feeding of a newborn should be done through probe or spoon the mother should milk in the sterilized vessel in clean environment. The newborn is fed exclusively with non-pasteurized mother milk.

5.5.7. The treatment and transfer of a newborn with infectious diseases and other signs should be conducted according Appendix 15.

5.5.7. After the discharge or transfer of a newborn, the bed items should be disinfected (Appendix 8).

6. Washing of Bed Linen
6.1 Bed linen is washed in the laundry of a maternity hospital (health care facility) and in case of its absence, in the hospital laundry, however separate from the bedclothes of the other departments.

6.2 In case the maternity hospital bedclothes are washed in the general laundry it should be washed on a separate day.

6.3 Processing and laundry of clean and dirty bedclothes should not be mixed. The guidelines of the bedclothes washing is defined in Appendix 11.

7. Staff Hand Washing and Processing of Surgery Surface for Labor or Surgical Procedures

7.1 All local and foreign antiseptics permitted to use according to the defined order may be used for washing hands of all persons involved in labor and different surgical procedures (Appendix 8).

7.2 To process surgical surfaces, skin of external genitals and internal surface of hips of a woman in delivery the iodinate, iodipiron, solution of chlorinate hexidyne gluconade for mucous and other skin aseptic permitted for the usage according to the defined order should be used (Appendix 8, Table 2).

8. Disinfection, Pre-Sterilization Processing and Sterilization of Medical Items

8.1 The disinfection of medical items and things should be conducted at the departments, and the pre-sterilization cleaning and sterilization at the central sterilization departments (CSD). In case the latter is lacking all above mentioned phases should be conducted at the obstetric inpatient departments.

8.2 Observation of the sterilization rules at obstetric inpatient facilities among women in delivery and newborn, at the same time, is mean to prevent infectious diseases, including HIV.

9. Investigation and Elimination of NI Group Cases Registered in Pregnant, Women in Delivery and Newborns at Obstetric Inpatient Facilities
The activities connected with investigation and elimination of NI group cases in pregnant, women in delivery and newborns at obstetric inpatient facilities are conducted according to Appendix 16.

10. Hospitalization of Pregnant and Patients to Day Care Bed Department of Obstetric Inpatient Facilities

The hospitalization of pregnant and patients to obstetric inpatient facility day care bed department is conducted according to the procedure described in Appendix 17.
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RA Minister of Health Decree
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10 steps of Baby Friendly Hospitals

Each health care facility organizing care during the labor and newborn care is obliged to:
1. Have a written policy on the breastfeeding, and the staff should be regularly informed about it;
2. Organize staff training to improve the skills required for implementing the stated policy;
3. Inform pregnant women about the advantages of the breastfeeding;
4. Assist mothers to start breastfeeding after 30 minutes following the delivery;
5. Explain mothers how to breastfeed and how to secure milk even in cases when the mother and child are in separate rooms;
6. Do not provide other food or liquids to newborn except the breast milk, except in cases when there is a respective instruction;
7. Perform 24 hour in-room practice;
8. Encourage breastfeeding upon newborn request;
9. Do not give smoother to newborns who are breastfed;
10. Encourage development of the mother support groups so as after the discharge the mothers would be provided with the respective assistance.
Nosocomial Infection Epidemiological Control Program,
Procedure on NI Detection and Registration

1. Nosocomial Infection Epidemiological Control Program

1.1 Definition of the NI standard criteria based on the results of the clinical signs, microbiological investigation and data on epidemiological anamneses.

1.2 Definition of the NI epidemiological control criteria, which will enable to detect the nature of the registered infection, implement registration of the detected NI as well as study its transfer factors and to reveal epidemiological links.

1. 2. 1. Detection of infection transfer factors and risk groups.

1.3. Detection of NI cases is implemented both through active and passive methods.

Active method
Is implemented through assessment of the results of the daily visits, examination of pregnant women and women in delivery, medical documents, temperature record lists and lab examinations. It:

• Secures detecting and registering of all infection cases and all clinical signs;
• Enables to detect NI high risk zone, “problematic” department and the virus;
• Detects NI current level, discovers the disorders and links between the causes and consequences;
• Permits to assess the application efficiency of the preventive and experimental (empiric) anti-biotic therapy;
• Permits to observe the structure of circulating viruses and develop new approaches for conducting sanitary-microbiological studies.

Passive Method
Is implemented through information provided by the medical staff upon occurrence of any virus on a voluntary basis as well as retrospective studies of the medical documents of the discharged women and newborn. It:

• Enables to assess NI background level;

1.4. Data Collection and Analysis

1.5. Organization of epidemiological measures and assessment of their efficiency
1.6 Continuous training of providers and control over the implementation of the respective measures.

2. NI Detection and Registration

2.1. All cases of inflammation in women in delivery and newborn during their stay at hospitals and/or after 7 days of the discharge (the longest latent period) are regarded as obstetric NI cases.

2.2. Registration any case of the infectious disease or suspicious case in women in delivery and newborns at inpatient facilities shall be reported to the territorial bodies of SHEH within 12 hours.

2.3. The inter-uterus infection cases in newborns are subject to the separate registration. Since the NI cases in women in delivery and newborns are developed and detected as in obstetric facilities as well after their discharge or transfer to another hospitals and are characterized with various clinical pictures, the organization of information gathering should be conducted both at obstetric facilities and at pediatric hospitals and polyclinics, surgical and gynecological departments, women consultations, diagnostic-anatomical departments, and etc.

All the above-enumerated organizations should within 12 hours operatively inform (making phone calls) the territorial SHEH bodies in case of diagnosing NI in women in delivery and newborns. The territorial SHEH bodies should transfer the information regarding NI in women in delivery and newborns to the inpatient facility where the labor took place to organize and implement epidemiological activities within 12 hours.

2.4. The hospital epidemiologist together with the head of sub-department should conduct active detection of the NI case through the continuous control as well as operative analysis of the documents and feedback.

The hospital epidemiologist together with the head of sub-department should:
- Organize control over detection and operative registration (daily) of NI cases;
- Receive daily information from the functional sub-departments of the maternity hospital (departments) regarding violation of the registered NI sanitary-epidemiological regime, results of the bacteriologic examination, unusual reactions caused by immune-bacteriological vaccination injections, and conduct analysis of the occurrence causes and submit information about initiating emergency steps to the management.

3. Morbidity of newborns, pregnant women and women in delivery subject to registration

3.1 Infants
- Conjunctivitis and dacriocystitis
- Pyoderma, pseudofurunculosis
- Phlebitis of umbilical cord vein
- Panaritium, paronychia
- Omphalitis
- Otitis
- Impedigo pemphigus, vesicoulapustulosis
- Mastitis
- Enterocolitis
- Pneumonia
- abscess, phlegmon
- meningitis
- osteomielitis
- sepsis
- post-vaccination infection
- intestinal infections
- virus hepatitis B and C
- Other infectious diseases.

3.2 Women in delivery
- obstetric wound post-surgery infection, including pyosis and remove of stitches
- endometritis
- peritonitis, including after cesarean section
- sepsis
- mastitis
- post-injection infection, flegmona, absesis
- flu, acute respiratory diseases
- Complications of respiratory infections: tracheobronchit, pneumonia, enphisema and etc.
- cystitis, urethritis, pyelonephritis
- intestinal infections virus hepatitis B and C
- other infectious disease
- flebititis

4. Epidemiologic Analysis

4.1 Epidemiologic analysis of cases assumes studies of NI cases level, structure and progress at maternity hospital (inpatient facility) to assess the epidemiological situation and develop complex epidemiological measures.

4.2 Operative and feedback analysis assumes studies related with the identification, diagnostic processes, origin and development of NI cases. NI operative studies are conducted according to the preliminary diagnosis based on the daily recorded cases.
4.3 During the morbidity analysis the assessment of epidemiological conditions is performed, and the favorable conditions or complications connected with the epidemic, compliance of the implemented measures or the necessity to strengthen them are defined.

To conduct operatively a feedback analysis of morbidity it is necessary to have objective information on the latter as well as data on births and live born cases in addition to the number of the patients of the department.

4.4 The analysis of the NI morbidity should be carried out taking into account:

- Infection occurrence dates;
- Delivery dates;
- Dates of discharge or transfer to inpatient facility;
- In-hospital flows;
- Duration of stay at inpatient facility.

4.5 Group morbidity should be regarded when during one latent period occur 5 and more NI cases in women in delivery and newborns and which are connected with the same source of infection and general transfer factors.

4.6 The feedback analysis of NI morbidity in women in delivery and newborns predicts:

- tendency of morbidity over the years (increase, decrease, stability) and definition of the increase or decrease rates;
- annual and monthly analysis of morbidity;
- comparative characteristics of morbidity according to the departments;
- structural study of morbidity according to the diagnostic nidus and origin;
- analysis of surgical interventions during labor and frequency of NI related with them;
- ratio of light and severe cases;
- spread of morbidity according to dates of clinical signs (during the stay at inpatient facility and after the discharge);
- definition of group morbidities rates and analysis of epidemic cases;
- Analysis of mortality according to the epidemic nidus allocation and origin.

4.7 In analyzing morbidity cases in newborns it is necessary to differentiate between the NI and inter-uterine infections.

To diagnose the latter it is necessary to take into account:

- Obstetric anamnesis,
- Presence of indirect signs of the fetal inter-uterus infection;
  - Sexual or non sexual infections of the mother during the pregnancy;
  - hyperanemia;
  - preterm outburst of waters;
-repeated (too many) vaginal examinations.

- From newborn and possible biological materials: fetal water, placenta, throat, intestinal secretion, urine, and other, remission of germs immediately after the birth.

4.8 The feedback analysis of the women in delivery and newborns permits to detect:

- regularity of epidemiological processes;
- possible infection sources;
- important factors of transfer;
- Serves as a basis to develop preventive and epidemiological measures relevant for the concrete epidemic of the maternity facility (department).

Feedback analysis of providers’ morbidity permits to decide:

- frames of the infection source;
- implement measures aimed at restricting their role in NI expansion;
- 4.9 The most important sources of infection are persons having nasal (hymorit, synusit and other), urine tract (prolonged pyelonephritis, cystitis), skin and subcutaneous tissues (abscess/inflamer) pathologies.

In the result of providers’ hospitalization chronic infections cases are detected and relevant treatment is provided.

5. Microbiological Monitoring

5.1 Microbiological monitoring (MM) is one of the most important epidemiologic control criteria. MM should be implemented simultaneously for all sanitary-microbiological (SM) and clinical-microbiological (CM) results.

The goal of microbiological monitoring is as follows:

- Identify the nature of NI (eczogen, endogen) and study its eczogen transfer;
- Detect NI source, transfer factors and assess their role;
- Substantiate anti-epidemiological connection between NI separate cases as well as NI and external world;
- Identify efficiency of preventive and anti-epidemiological measures conducted to reduce circulating germs;
- Check quality of the new methods applied for disinfection and sterilization of materials, instruments and the quality of any diagnostic, laboratory and therapeutic innovations.
- Detect hospital circulating strains;
- Detect problematic zone of the NI high risk occurrence and spread conditioned with the peculiarities of maternity hospital (department).
5.2 Microbiologic monitoring is conducted by the preventive facilities, SHEH Inspectorate territorial bodies and Diagnostic Center.

5.3 Microbiological monitoring over the sterilization should be conducted by preventive facilities following NI provisions and epidemiological situation, SHEH Inspectorate territorial bodies - once in a year, and the Diagnostic Center - based on choice.

5.3.1 The scope of examination covers:
- Medicine for injection;
- Medicine for treatment and care of mucous of infants;
- Liquid medicine/mixtures;
- Bandaging and stitching means;
- Surgery gloves;
- Primary and secondary set for procedures for infant;
- Substances from sterilization boxes used for infant care;
- Set of instruments for delivery, catheters;
- Other medical items.

5.3.2 Microbiological analysis of the environment and objects are carried out in the following cases:
- Epidemic cases or targeted in the following cases:
  a) NI cases;
  b) Discovery of conditional pathologic germ at the non-typical anatomical allocation;
  c) Discovery of two similar resistant anti-biotic germs in two different patients;
- In case of non-satisfactory observation of the sanitary-hygienic and epidemiological regime at obstetric inpatient facilities (at the discretion of SHEH Inspectorate territorial body).
- To monitor the quality of the final disinfection in hospitals which operations were temporarily terminated due to the unfavorable epidemiological situation before permitting them to restart functioning.
- In applying new diagnostic technologies.
- To check the quality of new disinfection materials (if necessary or in applying new materials).
- Reconstruction or repair of maternity hospital (department).

5.4 When analyzing the structure of NI in women in delivery and newborns it is necessary to consider both the results of the laboratory analysis provided to them during their stay at hospital and those received from pediatric polyclinics, hospitals, and women consultations, gynecological and surgical departments.
5.5 SHEH Inspectorate territorial bodies should be informed about the approved or disproved results of microbiological examination cases within 12 hours so as to notify the obstetric facilities about the findings.

5.6 Results of the analysis of NI infection in women in delivery and newborns, medical personnel (infected or virus-carrier) along with sanitary-microbiologic examination results enables to define the strain of circulating germs.

5.7 The data on classification of infection types, epidemiological markers such as gender -bio or phago-carriers, profiles of plasmides and antibiotic grams promote to detect NI strain.

5.8 Timely identification of the infection agents’ spectrum provides the opportunity to introduce corrections into the system of preventive and epidemiological measures, and ensure reduction of morbidity.

6. Prerequisites of poor/critical epidemiological situation and identification of symptoms

Two groups of factors (symptoms) can contribute to the complication of epidemiological situation. One is connected with sanitary-technical condition of the hospital and the other is with the number of women in delivery and management of the work.

6.1. The first group of symptoms is accounted for:
• Lack of sufficient equipment and instruments, bandages, medicine;
• Lack of sufficient facility area and staff;
• Crossing of technological flows;
• Disruption in air-ventilation system if such system exists;
• Poor water utility systems;
• Disruption in cold and hot running water supply;
• Disruption in heating and energy supply;
• Irregular supply of bedclothes and disinfected means.

6.2 The second group of symptoms is accounted for:
• Overload of the hospital;
• Violation of comprehensive precautionary and standard measures of NI spread ;
• Late allocation of women in delivery and newborns at the respective inpatient facilities.

6.3. In case of detecting any unfavorable infection signs the epidemiologist of the hospital should operatively report to maternity hospital (department) management and SHEH Inspectorate territorial bodies. Measures should be taken to eliminate the noncompliance and strengthen preventive and epidemiological complex steps.

When analyzing operatively the information it is important to timely detect critical symptoms of epidemiological situation in hospital:
• Growth of heavy cases, as a rule, verifies under-registration of light cases and/or development of critical epidemiologic situation;
• Prevalence of one clinical type in the NI infection structure in women in delivery and newborns stands for the development of widely spread (generalized) types of infection;
• Occurrence of two and more cases connected with the disease, growth of pyo-inflammatory and other infectious diseases among medical personnel;
• Growing number of diagnosed “intrauterine infection”.

6.4 Timely identification of the above mentioned symptoms provides opportunity to implement operatively the necessary measures to prevent further complication of epidemiologic situation.

In case it is impossible to eliminate critical preconditions and symptoms complicating the epidemiological situation the issue of termination of the facility’s operations is considered.

7. Assessment of Epidemiological Situation

7.1. Analysis of all the information mentioned above provides the opportunity to have a true picture on the peculiarities and the reasons of the epidemiologic infection at the hospital, to assess the epidemiological situation and develop effective anti-epidemiological measures.

7.2. Assessment of the effectiveness of the preventive measures is based on the situation at the hospital. The assessment could be done both for the implemented comprehensive and separate measures.

Assessment of separate measures can be done in -situ on introduction of new modes and methods of work as well as testing of the mixtures.

The results of epidemiological monitoring of the infection at the obstetric facilities are the basis of planning and implementation of the scientifically justified preventive and anti-epidemiological measures aimed at the effective reduction of NI.
Nosocomial Infections Prevention Administrative Functions

The NI infections prevention administrative functions are the following:

1. Development and introduction of the NI prevention process securing:
   - Isolation;
   - Safe injection;
   - Safe blood;
   - Administrative-economic operation;
   - Work security and hygiene;
   - Waste collection and disposal;
   - Regulatory activities connected with NI policy and visits.

2. Prediction of costs and resources of the NI preventive measures in the budget of the health facility.

3. Securing the stock of the medical equipment and supplies, including:
   - Antiseptics, washing and disinfecting materials;
   - Sterile disposal gloves and utility gloves;
   - Syringes, needles, vein/urine catheters, transfusion systems;
   - Disposal paper masks (shields), plastic aprons, and gum boots (shoes);
   - Housekeeping supplies;
   - Linen for special cases;
   - Waterproof and leak-proof containers (tanks) to collect hospital waste;
   - Cleaning/washing supplies.

4. Training and Methodological guidelines
   - Revision of NI instructions and standards connected with introduction and application of new antiseptics and technologies;
   - Plan on providing instructions to newly recruited staff and on continuous training and retaining of the current medical personnel;
   - Development a plan of action for the work hygiene and preventive measures, and prevention and treatment of professional diseases.
Procedure on Implementation of Precaution Comprehensive and Standard Measures against NI Infection Spread

1. The possible NI infection sources at a health facility are the following:
   - Pregnant, women in delivery and sick newborns;
   - Visitors;
   - Providers.

2. Possible factors and ways of the infection transfer sources at a health facility are as follows:
   - Blood or other body fluids (vaginal secretions and pus from open sores and others);
   - Mucous produced when sneezing or coughing;
   - Contaminated equipment and tools (gloves, needles, speculum, forceps, scissors and others);
   - Dirty surfaces (examination tables or other working surfaces) as well as dirty floors, door handles, toilets which have not been cleaned.

3. The only way to prevent infection transfer is to stop the transmission of microorganisms which traditionally was carried out by providing isolated areas for pregnant and women in delivery and/or applying shielding measures. However, often these steps are not sufficient to prevent NI which is mainly conditioned with violation of aseptic and hygienic principles.

   Comprehensive precaution policy for infection prevention is a complex of activities aimed at preventing the transfer of infection from patient to patient and medical personnel and back to front (Table 1).

The modern preventive measures are targeted both at restriction and isolation of the infection source and interruption of transfer ways and mechanisms.

They are as follows:
   - Special requirements in regard with stay of pregnant, women in delivery and newborns (pregnant should be separated from women in delivery, mother and infant should stay together in one room);
   - Use of individual protective/shielding means;
   - Medical staff hand washing and differentiated processing of hands;
   - Special requirements in regard to transfer of pregnant, women in delivery and newborns;
• Special requirements in regard to utilizing and processing of the care supplies for pregnant, women in delivery and newborns;
• Current and final cleaning/disinfection;
• Organizational requirements.

It is safer to act regarding the principle that every client is infected rather than to apply standard precautions to some clients and not others.

Table 1.

1. List of NI Preventive Standard Measures

<table>
<thead>
<tr>
<th>List of Standard Measures Always Applied for Isolation</th>
<th>Implementation of Infection Prevention Measures Connected with</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aerobic infection</td>
</tr>
<tr>
<td></td>
<td>Capillary infection</td>
</tr>
<tr>
<td></td>
<td>Contagious infection</td>
</tr>
<tr>
<td>Room</td>
<td>To provide a separate room to pregnant or newly delivered</td>
</tr>
<tr>
<td></td>
<td>women who contaminate the environment or are not capable</td>
</tr>
<tr>
<td></td>
<td>to follow the respective hygienic requirements.</td>
</tr>
<tr>
<td></td>
<td>Isolated room with the negative pressure of the air.</td>
</tr>
<tr>
<td></td>
<td>The door should be kept closed.</td>
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<tr>
<td></td>
<td>Isolated room, isolation of patients with the same infection,</td>
</tr>
<tr>
<td></td>
<td>if necessary.</td>
</tr>
<tr>
<td></td>
<td>The door may be left open.</td>
</tr>
<tr>
<td></td>
<td>(Cohort isolation)</td>
</tr>
<tr>
<td></td>
<td>A separate room, i</td>
</tr>
<tr>
<td></td>
<td>with the same infection,</td>
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<tr>
<td></td>
<td>Individual usage supplies.</td>
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<tr>
<td>Masks</td>
<td>To protect providers’ eyes, mouth and upper respiratory</td>
</tr>
<tr>
<td></td>
<td>tract mucous membrane from possible spills of blood and</td>
</tr>
<tr>
<td></td>
<td>other biological fluids and secretions during surgeries,</td>
</tr>
<tr>
<td></td>
<td>procedures and caring after pregnant, women in delivery</td>
</tr>
<tr>
<td></td>
<td>and newborns.</td>
</tr>
<tr>
<td></td>
<td>In entering into the ward.</td>
</tr>
<tr>
<td></td>
<td>In entering into the ward.</td>
</tr>
<tr>
<td>Face shield / with eye protectors</td>
<td>To protect providers’ eyes, mouth and upper respiratory</td>
</tr>
<tr>
<td></td>
<td>tract mucous membrane from possible spills of blood and</td>
</tr>
<tr>
<td></td>
<td>other biological fluids and secretions during surgeries,</td>
</tr>
<tr>
<td></td>
<td>procedures and caring after pregnant, women in delivery</td>
</tr>
<tr>
<td></td>
<td>and newborns.</td>
</tr>
<tr>
<td><strong>Medical uniform/gown</strong></td>
<td>During the interventions when the decontamination of the skin and clothes is possible from blood, biological fluids, secretion spills.</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Gloves</strong></td>
<td>Contact injured skin, mucus, blood, biological fluids, and items decontaminated with secretions.</td>
</tr>
<tr>
<td><strong>Hand washing</strong></td>
<td>Before and after wearing gloves, contact with blood and other biological secretions, contaminated items, before and after examination or care of each patient.</td>
</tr>
</tbody>
</table>
| **Diseases/Viruses**   | - Measles  
- Lungs or Throat tuberculosis  
- Dropsy*  
- Zoster Herpes*  
- Throat diphtheria  
- A Group Streptococcus infection  
- Pharyngitis, -Pneumonia  
- Scarlet fever  
- Meningitis  
- Epiglotitis  
- Flu  
- Parvo-virusB-19  
- Whooping cough  
- Cholera  
- Measles | - Adeno-virus,  
- Enterocolitis,  
- Innate measles,  
- Diphtheria (skin)  
- entero-virus infections  
- furunculosis  
- skin burns, sores  
- streptococcus infections  
- hemorrhoid fever  
- fetus intra-uterin risk of intranatal infection virus, Virus Hepatitis  
- cytomegalia,  
- genital herpes,  
- STI-s / syphilis, other  
- Chicken-pox*  
- Scab, Lice-ridder |

* The situation requires two types of measures.

*The standard precaution measures should be observed for each patient irrespective if the patient is infected or not.*

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While performing different medical interventions (such as maintaining labor, making injections, invasive examination and others) providers and women are at a higher impact of the different microorganisms.

Wearing of protection clothes together with the application of other aseptic rules reduces the risk of developing of postpartum infection complications in women through decreasing penetration of infections into the body of women during the delivery. Some elements of the protection clothes are aimed at preventing immediate contact of a provider with the infected blood or tissues reducing thus penetration of the infection for providers.

Protection uniform consists of:

- Gloves;
- Caps;
- Masks/shields;
- Waterproof aprons;
- Eye protectors.

**Gloves**

- Prevents transfer of germs from hands to women.
- Protects providers’ hands from the immediate contact with blood, other fluids and tissues.

**Masks**

- Prevents transfer of germs while talking, coughing or breathing.
- Protects in penetrating blood or other fluid spills into providers’ nose and mouth.

**Waterproof Aprons**

- Prevents transmission of germs to women.
- Protects providers’ skin and clothes from the immediate contact with blood, other fluids and tissues.

**Caps**

- Prevents transmission of germs from providers’ skin or hair to women.
• Protects providers’ hair from the immediate contact with blood, other fluids and tissues.

**Protection Glasses**

• Protection impact on women has not been revealed.

• Prevents penetration of blood and other fluids into providers’ eyes.
1. General Cleaning/Housekeeping of Obstetric Inpatient Facility

General housekeeping of obstetric facilities is the best way of infection prevention. It is one of the most important preventive measures and has a vital importance for the health and safety of pregnant, women in delivery, staff and the community at large.

It decreases:
- Number of micro-organisms and risk of accidents;
- Creates comfortable and pleasant atmosphere to work and provide services;

2. Health facilities are cleaned by cleaning solutions.

2.1 Types of Cleaning Solutions and their Preparation Procedure

Three types of solutions are applied to clean the facility.

2.1.1 Plain detergent (powder) and water

This is used for low-risk areas and general cleaning tasks. Detergents clean and remove dirt and organic oils.

2.2. Disinfectant solution (0.5% chlorine solution)

Disinfectants rapidly kill or inactivate infectious microorganisms during the cleaning process. Disinfectants are also used to decontaminate an area so that it becomes safer. Therefore it is safer for staff to clean with a disinfectant cleaning solution.

At present the cheapest, the most available and effective and widely spread disinfection is 0.5% chlorine solution, however as alternatives any disinfection means having the application license may be used.

2.2.1 Advantages of chlorine containing solutions are as follows:
- It is a proven and powerful killer of microorganisms.
- It deodorizes.
- It is not poisonous to humans in the concentrations in which it is used.
• It leaves no poisonous residue.
• It is colorless, easy to handle, and economical to use.

3. Disinfecting and cleaning solution

This solution contains a disinfectant and a detergent and water. This solution is used for cleaning areas that may be contaminated with infectious materials (such as operating theatres, procedure rooms, latrines, and laundries). The solution must contain both a disinfectant and a detergent. Disinfectants rapidly kill or inactivate infectious microorganisms during the cleaning process, while detergents remove dirt and organic material, which cannot be done by water or disinfectants alone.

**Caution:** Chlorine solutions should never be mixed with cleaning products containing ammonia, ammonium chloride, or phosphoric acid. Combining these chemicals will result in the release of a chlorine gas, which can cause nausea, eye irritation, tearing, headache, and shortness of breath. These symptoms may last for several hours. If you are exposed to an unpleasantly strong odor following the mixing of a chlorine solution with a cleaning product, leave the room or area immediately and the air room or area.

To make a disinfectant cleaning solution:

• Prepare a 0.5% chlorine solution (or obtain any alternative disinfectant).
• Add some detergent and mix. Continue adding detergent until the solution is mildly sudsy.

**How to Define the Quantity of “Active” Chlorine**

Chlorine-containing compounds are described as having a certain percentage of "active" (or available) chlorine. It is the active chlorine in these products that kills microorganisms. The amount of active chlorine is usually described as a percentage, and differs from one product to another. This is important so that a chlorine solution with 0.5% "active" chlorine can be prepared.

3.1. Preparation of 0.5% Chlorine Solution using Liquid Household Bleach

Chlorine in bleach comes in different concentrations. You can use any concentration to make a 0.5% chlorine solution by using the following formula:

\[ \frac{\text{% chlorine in liquid bleach divided by 0.5%}}{\text{minus 1}} = \text{parts of water for each part bleach} \]

• Note that "parts" can be used for any unit of measure (e.g., ounce, liter, or gallon) and need not even represent a defined unit of measure (e.g., pitcher or leak-proof container).
Example: To make a 0.5% chlorine solution from a 3.5% chlorine concentrate, you must use 1 part chlorine and 6 parts water:

\[
\frac{3.5\%}{0.5\%} - 1 = \frac{7}{1} - 1 = 6 \text{ parts water for each part chlorine}
\]

3.2.2. Preparation of Disinfection Solution Using Bleach Powder (Chloramie B, Calcium Hyperchloride, and others)

**Note:** When using bleach powder, calculate the ratio of bleach to water using the following formula:

\[
\text{[\% chlorine desired divided by \% chlorine in bleach powder] times 1000 = Grams of powder for each liter of water}
\]

Example: To make a 0.5% chlorine solution from calcium hypochlorite powder containing 35% available chlorine:

\[
\frac{0.5\%}{35\%} \times 1000 = 0.0143 \times 1000 = 14.3
\]

Therefore, you must dissolve 14.3 grams of calcium hypochlorite powder in 1 liter of water in order to get a 0.5% chlorine solution.

3.3 Using chlorine-releasing tablets

It is necessary to follow the manufacturer's instructions, since the percentage of active chlorine in these products varies.

**Health Facility Cleaning Guidelines**

1. **General Cleaning/Housekeeping of Obstetric Inpatient Facilities**

   To maintain the housekeeping in obstetric inpatient facilities it is necessary to develop cleaning schedules and post them in an area where all housekeeping staff can see them.

   - Make sure that cleaning schedules are closely maintained.
   - Always wear gloves (preferably thick utility gloves) when cleaning.
   - It is necessary to apply two bucket method.
   - In cleaning different risk zone areas supplies foreseen for such areas should be used.
   - Use a damp or wet mop or cloth for walls, floors, and surfaces instead of dry dusting or sweeping. This reduces the spread of dust and microorganisms.
   - Scrubbing is the most effective way to remove dirt and microorganisms.
   - Wash surfaces from top to bottom so that debris falls to the floor and is cleaned up last. Clean the highest fixtures first and work downward-for example, clean ceiling lamps, then shelves, then tables, and then the floor.
• Change cleaning solutions whenever they appear to be dirty.

• Supplies and equipment used for cleaning also need to be cleaned. Equipment (such as mops, buckets, and cloths) should be decontaminated with a disinfectant (0.5% chlorine) solution, cleaned in detergent and water, rinsed in clean water, and dried before reuse.

• Utility gloves should be disinfected with 0.5% chlorine solution after cleaning is completed, then to put them off, wash and dry if they are not damaged.

• Wash hands after taking off the gloves.

2. Cleaning up spills
Clean up spills of potentially infectious fluids immediately (e.g. blood, biological fluids, urine and others). Besides preventing the spread of infection, prompt removal also prevents accidents.

When cleaning up spills:
• Always wear gloves.

• If the spill is small, wipe it with a cloth that has been saturated with a disinfectant (0.5% chlorine) solution.

• If the spill is large, cover (flood) the area with a disinfectant (0.5% chlorine) solution, mop up the solution, and then clean the area with a disinfectant cleaning solution.

• Do not simply place a cloth over the spill for cleaning up later; someone could easily slip and fall on it and be injured.

3. Cleaning Procedures for Different Clinic Area

3.1 Low-risk areas (waiting rooms, administrative areas): These are the areas that are usually not contaminated with dirt or infectious microorganisms. Routine cleaning--the kind of cleaning you would do in your home--is usually good enough for these areas. Don’t forget to clean doorknobs, chair arms, chairs, etc.

In general, clean these areas once a week (or whenever they appear to be dirty) with a cloth or mop dampened with detergent and water.

3.2. Toilets, Latrines, and Sluice Rooms

These areas are usually heavily contaminated and should be cleaned daily--or more often if traffic in your facility is high.

3.3. Client-care areas (operating theatres, procedure rooms, laboratories, areas where instruments are cleaned and processed): These areas must be cleaned with special care using a disinfectant cleaning solution. In these areas, there is a greater potential for contamination with infectious materials for both clients and clinic staff. These areas should be cleaned as follows:

• Every morning damp-wipe or mop countertops, tables, trolleys, and floors with water.
Before and after receiving pregnant, women in delivery and newly delivered women:

- Clean operating and procedure rooms, examination tables, trolleys or Mayo stands, countertops, lamp handles, and any other potentially contaminated surfaces with a cloth dampened with a disinfectant cleaning solution.

- Clean spills of blood or other body fluids immediately with a 0.5% chlorine solution.

- Put waste in a leak-proof container. Remove the container from the operating theatre or procedure room when it is three-quarters full.

- Clean visibly soiled areas of the floor with a mop soaked in a disinfectant cleaning solution.

- At the end of the clinic session or day:
  - Remove contaminated waste and dispose of it as soon as possible to limit exposure.
  - Wipe all surfaces--including counters, tabletops, sinks, lights, and door handles and plates--with a cloth saturated with a disinfectant cleaning solution.
  - Pay particular attention to procedure/operating tables, making sure to thoroughly clean the sides, base, and legs with a disinfectant cleaning solution.
  - Clean the floors with a mop dampened with a disinfectant cleaning solution.
    - It is not allowed to dry-sweep or dry mop the operating theatre and procedure rooms or you may stir up dust that contaminates surfaces you have already cleaned.
  - Always wear gloves when cleaning. If gloves are not available, place plastic bags over your hands.
Preparation and Processing of Hand Washing and Surgical Theatres

1. Hand washing instructions and types

One of the important NI prevention factors is the accurate and appropriate washing and processing of staff hands. Careful hand washing and skin care can prevent infection from provider to pregnant/women in delivery/newborns.

1.1 Hand washing instructions:

- Immediately when you arrive at work;
- Before examining each pregnant/women in delivery/newborn;
- Before putting on gloves for clinical interventions and after putting them off;
- After touching any instrument or object that might be contaminated with blood or other body fluids, or after touching mucous membranes;
- After touching mucous membranes;
- After you handle blood, urine, or other fluids;
- After removing any kind of gloves (hands can become contaminated if gloves contain tiny holes or tears);
- Before and after taking food;
- After using the toilet or latrine;
- Before leaving the work place.

1.2 Hand Washing Types

- **Usual washing** (removal of dirt and host germs)
- **Hygienic antiseptics** (removal and killing of host germs)
- **Surgical antiseptics** (removal and killing of host germs and reduction of the resident germs quantity)

1.2.1 Usual washing instructions

- In contacting with potentially decontaminated items;
• In case of dirty hands;
• Before taking food;
• Before and after care provided to patients;
• After using the toilet or latrine.

1.2.2 Washing procedure
• Wet hands with running water;
• Soap thoroughly with liquid or soap in piece;
• Rub thoroughly fingers and thumbs of the two hands;
• Rinse under clean running water;
• Dry clean with dry cloth or paper napkin;
• If the hands are slightly dirty take 10-15 seconds for washing;
• If the hands are dirty enough, wash them for 1-2 minutes.

1.3 Hygienic antiseptic instructions
• Before and after wearing gloves;
• Before and after care of all pregnant, women in delivery or newborns belonging to risk groups;
• Before and after delivery and different interventions, including invasive;
• Before and after processing wounds/sores;
• Before and after putting urine catheters;
• After contacting other biological fluids.

1.3.1 Washing and processing procedure
• Take off all jewelry;
• Turn on cold or hot (if available) water and soak hands thoroughly;
• Soak wrists, rub thoroughly palms and between fingers;
• Rinse with running water;
• Dry hands with napkin;
• Turn off the tap with the same napkin;
• Throw napkin into the dustbin;
• Process hands with 60-90% ethyl/methyl, isopropyl spirit solution or any other permitted antiseptic for 2-3 minutes or before they dry;
• In case of using antiseptic soap, the usage of antiseptic is not necessary.

When it is not possible to wash hands and they are not visibly decontaminated with blood or dirt it is proposed to process hands with antiseptic disinfecting spirit solution which may be prepared by adding to 100 ml 60-90% ethyl/methyl/isopropyl spirit to 2ml glycirin/propilen glikor/sorbitol. Rub hands with 3 ml double mixture until they get dried.
1.4 Surgical antiseptics instructions

- Surgical vaginal delivery;
- Caesarian section;
- Amniocentesis;
- Laparotomy;
- Laparoscopy;
- Any intra-uterine intervention in the third stage and postpartum period and complete episiotomy of the birth channels.

1.4.1 Washing and Processing Procedure

Steps
- Take off all the jewelry from fingers and wrists;
- Turn on cold or hot (if available) water and wet thoroughly hands and wrists;
- Clean beneath the short cut nails with special cleaner or brush;
- Soap hands with making circling motions starting from the tips of fingers to elbows holding wrists above elbows;
- Wash for 3-5 minutes, rinse separately starting from the tips of fingers holding wrists above elbows;
- Dry hands starting from the tips of fingers to elbow by sterile towel or napkin using separate towels or napkins or different faces of the towel for each hand;
- Hold hands above waist and start repeated processing with 60-90% ethyl/methyl/isopropyl spirit or any other permitted antiseptic using 5-10ml mixture for at least 5 minutes.

2. Surgical Theatre Preparation and Processing Procedure

- A day before the surgery the patient takes a shower or washes the skin with soap and water and changes the linen;
- The hair can be removed with scissors half an hour before the surgery;
- The surgical theatre should be processed twice with circling motions from center to outward using 60-90% ethyl/methyl/isopropyl spirit or cotton swab or gauze soaked in any permitted antiseptics.

3. Processing of injection area and elbows' flexion.

- If the skin is visibly dirty then before injection it should be washed with soap and water;
- Before injection or taking blood it is necessary to process the injection field with 60-90% ethyl/methyl/isopropyl spirit or any permitted antiseptics and wait till they get dry.
4. Treatment of Birth Channel during Surgical Delivery

- Process birth channel mucous membrane with antiseptic thoroughly by cotton swabs or gauze, do not use spirit solutions.

Notes:

1. In case the running water is not available use a wall hanging basin or wash in a bowl by pouring water from a jug.
2. To wet the swab pour the antiseptic solution on it without immersing the swab into the solution.
3. The preferable antiseptic solution is considered 60-90% spirit solution.
4. Other means permitted according to the defined order may be used.
5. Spirit solutions should not be used for open sores and mucous membranes.
Appendix 7
Approved by
RA Minister of Health Order
N__________
“ ” __________ 2004

Glove Wearing Instructions and Procedure

1. Role of Gloves in Infection Prevention

Gloves have protection role. They prevent immediate contact of a provider with microorganisms that may be found in blood, urine or other secretions.

Gloves protect pregnant, women in delivery and newborns from the germs which may be on the skin of a provider when the latter is conducting examinations or procedures.

2. Types of Gloves and Glove Wearing Instruction

2.1 Types of Gloves

There are three types of gloves that are used in the clinical practice: utility, examination and sterile/high level disinfected surgical gloves.

2.2 Glove Wearing Instructions

Providers should wear the appropriate type of gloves when they are immediately contacting with:

- Blood or other fluids (e.g. in providing services, cleaning of instruments, performing cleaning measures and etc.);
- When they are conducting examination or interventions during which there is a high risk for pregnant, women in delivery or newborns to get infected.

2.2.1 Instructions on Using Utility (Technical) Gloves

- Disposing of general and medical waste;
- Handling contaminated linen;
- Disinfecting and cleaning of used instruments;
- Cleaning walls, sinks and toilets;
- Collecting and removing rubbish around the health facility.

2.2.2 Instructions on Using Examination Gloves

1. Vaginal examination;
2. Mucous membrane and skin examination if there is:
• A probability of contacting blood or other contaminated fluids (e.g. inside of the mouth, examination of placenta);
• In case of using instruments which may be infected;
• In making injections, in taking blood for testing;
• In washing women body during and after delivery;
• In care for newborn before he/she is washed/cleaned.

2.2.3 Instructions on Using Sterile Surgical /High Level Disinfected Gloves
Sterile (sterilized) surgical gloves come in sealed packages or boxes.

• Immediate contact with tissues, open sores or blood veins (e.g. cathetering, in delivering a baby);
• While suturing;
• Changing sterile dressings;
• There is a need of intervention during the third stage of delivery and in postpartum period;
• During surgical procedure, such as caesarian section.
Sterile surgical gloves are preferable, however if they are not available high-level disinfected (HLD) gloves may be used.

Whenever possible use disposable gloves. Disinfection of gloves is rather difficult since they may get torn during the process.

Before taking off the examination gloves put then into 0.5% chlorine solution, take them off carefully and leave the gloves in the solution for 10 minutes. Take out the gloves from the solution with forceps and throw into the leak proof container.

3. Procedure on Processing Used Latex and Rubber Gloves
• If they are not torn wash then with liquid soap or solution containing washing detergent;
• Rinse thoroughly in running water and check gloves to find out damaged parts;
• Non damaged gloves should be sterilized or undergo high level disinfection.

3.1 Gloves sterilization
• Dry, talc and wrap;
• Put in sterilized boxes (tart) and sterile by steam, in sterilization camera (autoclave 120°C 1,1kg see/cm² – 30 minutes It is appropriate to use after 24-48 hours when they recover their elasticity.

3.2 High Level Disinfection (HLD) of Gloves
• Gloves should not be dried after washing for HLD.
• Wrap them in the gauze or put in string bags and place them in the electrical oven or pot.
• Load them into the water;
• Boil for 20 minutes. The starting time of boiling should be written in a special log.
• Do not open the lid or add anything during the boiling. Gloves should be used immediately or within 30 minutes.

3.3 Utility Gloves Processing Sequence:
• Before taking them off, disinfect glove by immersing into 0.5% chlorine solution;
• Carefully take off the gloves from hands and leave the gloves in the solution for 10 minutes;
• Wash in bleaching fluid, and rinse;
• If not damaged may be reused.

Warning:
- Encourage using gloves in cases when the decontamination of hands with blood or other biological fluids is possible. After taking off the gloves wash hands with soap.
- Rinse at least three times. To detect the damages on gloves immerse them into the water. If there are air bubbles, gloves are damaged.
Procedure on Disinfection and Processing of Medical Instruments, Syringes, Tools Surfa

<table>
<thead>
<tr>
<th>Name of stage</th>
<th>Characteristics</th>
<th>Necessary supplies</th>
<th>Sequence of actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Decontamination (disinfection)</td>
<td>- Disinfection solution (Appendix 3, Table 1,2)</td>
<td>- put on domestic gloves or do not take me intervention</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- plastic bowl, rubber gloves, apron, mask/face shield, clock</td>
<td>- collect all waste (Appendix 6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- put the instruments dirty with blood and disinfection chloride solution for 10 minutes to clogged instruments;</td>
<td>- put the instruments dirty with blood and disinfection chloride solution for 10 minutes³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Rinse syringes without removing needles chlorine solution by pulling in and out the solution for 10 minutes³</td>
<td>- disinfect the surfaces of medical equipment with cleaning/disinfecting solution (Appendix 6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### II. Washing

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disinfect medical gloves or put on utility gloves</td>
<td></td>
</tr>
</tbody>
</table>

- Disinfect medical gloves or put on utility gloves
- Washing
  - It is a physical and mechanical process in which the organic substances and 80% of microbes are removed (including some endospores)
  - Running water
  - Liquid soap or detergent
  - Metal bowl for boiling the liquid
  - Brush
  - Bowl for rinsing tools/instruments for checking chemical reactive quality
- Clean and dry the surfaces of the tools after:
  - Running or cold water removing the visible
  - Put them into a 40-50°C washing solution
  - Wash carefully syringes plungers, tools pa brush;
  - Rinse under running water and then with d
  - Dry with clean towel or let dry in the air
  - Check the quality of washed tools
  - Wrap and/or put them into the relevant box

### Sterilization

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sterilization</td>
<td>All germs are destroyed, including endospores</td>
</tr>
<tr>
<td>Sterilization method</td>
<td>Preferable method</td>
</tr>
<tr>
<td>Air sterilization (dry warm air)</td>
<td>- 170°C, 60 minutes</td>
</tr>
<tr>
<td>- 160°C, 120 minutes</td>
<td></td>
</tr>
<tr>
<td>- 20 minutes without wrapping</td>
<td></td>
</tr>
<tr>
<td>Steam sterilization</td>
<td>- 121°C, 1 kg/s</td>
</tr>
<tr>
<td>- 20 minutes, without wrapping</td>
<td></td>
</tr>
<tr>
<td>- 30 minutes, without wrapping</td>
<td></td>
</tr>
<tr>
<td>Chemical (cold) processing to be follow of the material/object</td>
<td></td>
</tr>
<tr>
<td>- 8% formaldehyde solution for 24 hours,</td>
<td></td>
</tr>
<tr>
<td>- 2% glyutaraldehyde solution for 10 hours</td>
<td></td>
</tr>
<tr>
<td>III High Level Disinfection (HLD)</td>
<td>All germs are destroyed, except endospores (clostridias)</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>🔄 Boil 20 minutes' or</td>
</tr>
<tr>
<td></td>
<td>🔄 chemical 8 (cold) processing for 20 minutes</td>
</tr>
<tr>
<td></td>
<td>- 0 1% chloride solution</td>
</tr>
<tr>
<td></td>
<td>- 8% formaldehyde</td>
</tr>
<tr>
<td></td>
<td>- 2% glyutaraldehyde</td>
</tr>
<tr>
<td></td>
<td>- 6% oxygen hydrogen peroxide</td>
</tr>
</tbody>
</table>
**Note: Explanation to Table 2**

1. Preparation of 0.5% chloride solution is provided in Appendix 5.
2. Usage of metallic bowls may cause electrolytic corrosion of tools.
3. Syringes and needles should be disposed into leak-proof containers after the usage. In case when it is not possible to burn them, the syringe should be through into the leak-proof container only after its disinfection.
4. To prepare washing liquid it is preferable to use liquid soap. Washing powers like “Progress”, “Astra”, “Any”, “Lotus”, “Barf”, “Bingo” may be used. It is not permitted to use solid soap since it leaves unsolvable plaque on items that are difficult to remove.
5. Sharp tools should be cleaned with soft brush (the old tooth brushes may be used as well). Be careful of splashes.
6. Use azopiram, benzidin, fenolftalen and others to detect blots of organic (blood) and non-organic materials. Check 1% of the washed tools (see the relevant instructions).
7. Boiling should be done in electrical oven or pot sinking tools 2-3 cm lower the water level, and registering the boiling time in a special log. It is not permitted to open the lid, add water or place additional tools during the boiling process. The water should be changed after each usage. The oven should be washed and dried.
8. Tools subjected to high level disinfection through chemical method should be rinsed 3 times in water which was boiled for 10 minutes, and after the sterilization they should be rinsed with sterile water. Tools should be used immediately or be kept in high level disinfected or sterilized containers no more than one week. It is obligatory to write the processing date on container.
9. To prepare 0.1% chloride solution sterile or 10 minutes boiled water should be used. The formula of preparing the solution is provided in Appendix 5.
10. Sharp tools should be sterilized only at 160°C for 2 hours.
11. During the hot steam method /autoclave/ sterilization it is necessary to use two-layer paper, newspaper, cotton or linen cloth. Foil, two-layer cotton or flaxen cloth may be used for dry air sterilization.

Canvas may not be used.

Wrapped tools are permitted to keep in sterilized drums or leak-proof containers for one week.

_**Working regime of drying box and autoclave as well as checking of pre-sterilization processing quality should be registered in a special log.**_
Waste Disposal: Procedure on Collection and Transfer of Medical Waste

1. Types of Waste and Waste Disposal Requirements

Waste disposal is a crucial aspect of infection prevention in health care facilities. Although disposal of waste from health facilities poses problems worldwide, it is often the most neglected area of infection prevention.

1.1 Three kinds of Waste

There are three types of waste in health facilities in general:

- General waste;
- Medical waste which may be infected, diagnostic-anatomic, sharps, cutting instruments, medications;
- Hazardous chemical waste.

It is extremely important to dispose of all three kinds of waste properly. The improper disposal of medical and hazardous chemical waste poses the most immediate health risk to the community.

1.2. General Waste

This is similar in nature to household trash. It is non-hazardous and poses no risk of injury or infections. Examples include paper, boxes, packaging materials, bottles, plastic containers, and food related waste.

1.3 Medical Waste

Is generated in the result of diagnoses, treatment or surgical interventions with pregnant and women in delivery and may contain:

- Blood, blood products, and other biological materials, as well as materials containing fresh or dried blood or other secretions, such as bandages and surgical supplies;
- Organic waste such as human tissue, body parts, the placenta, and the products of conception;
- Sharps (used or unused), including hypodermic and suture needles, scalpel blades, blood tubes, pipettes, and other glass items that have been in contact with potentially infectious materials (such as glass slides and cover slips).
1.4 Hazardous Chemical Waste
This is potentially toxic or poisonous, including cleaning products, disinfectants, cytotoxic drugs, and radioactive compounds.

Although both medical and chemical waste poses dangers, the focus of this section is on disposal of potentially infectious medical waste. Disposal of cytotoxic drugs and radioactive waste requires special consideration outside the scope of these instructions.

2. Development of Waste Disposal Management Plan
Every health facility, whether a large hospital, a doctor's office, or a small health post, should develop a medical-waste management plan and should designate a staff member to coordinate the management of medical waste.

The waste disposal management plan should contain the following four components:

- Sorting: Separating waste by type at the place where it is generated.
- Handling: Collecting and transporting waste within the facility.
- Interim storage: Storing waste within the facility until it can be disposed of.
- Final disposal: Eliminating or transporting of solid medical waste, liquid medical waste, sharps, and hazardous chemical waste from the health facility.

2.1. Procedure on Waste Sorting
Only a small percentage of the waste generated by a health care facility is medical waste that must be handled specially to reduce the risk of infections or injury.

Sorting the waste at the point where it is generated can significantly reduce the amount of waste that needs special handling and save time and human resources. Poor separation of waste at the point where it is generated leads to large amounts of trash that must be handled specially—which can overwhelm the disposal system, lead to improper disposal of medical waste, and put everyone at risk.

Each type of waste should be put in the appropriate waste containers. To help the staff use containers correctly it is necessary:

- Always keep separate containers in convenient places wherever both general and medical waste are generated.
- Use colored plastic containers, painted drums, or easily readable labels to help distinguish between general and medical waste containers. For example, paint the containers used for medical waste red or use red plastic bags, if available. Place sharps containers in convenient places so that staff do not have to walk across the room (or farther) carrying used sharps. Used sharps can cause injury and serious infections, including HIV and hepatitis B. Used sharps are
dangerous not only while working with them but at any place where they are available for contact.

2.2. Collecting and Handling of Waste

When handling medical waste, always wear thick utility gloves and sturdy shoes. Always wash your hands after removing your gloves. Handle medical waste as little as possible before disposal.

- Do not collect medical waste from client-care areas by emptying it into open carts or wheelbarrows, as this may lead to spills and contamination of the surroundings, may encourage scavenging of waste, and may increase the risk of injury to staff, clients, and visitors.

2.2.1 Emptying Waste Containers

- Full waste containers also present greater opportunities for accidents. Waste should be removed from operating theatres, procedure rooms, and laundries before the containers become completely full. At the very least, these containers should be emptied once a day. Dispose of sharps containers when they are 3/4 full. The waste should be transported without emptying the container or in solid plastic bag or sold boxes which were placed in them.
- It is not permitted to collect medical waste from client-care areas by emptying it into open boxes or wheelbarrows, as this may lead to spills and contamination of the surroundings, may encourage scavenging of waste, and may increase the risk of injury to staff, clients, and visitors.

3. Interim storage

- If possible, final disposal of waste should take place immediately, but it is often more practical to store waste briefly in your facility before final disposal.
- Interim storage should be short-term - usually waste should be stored only for a few hours before disposal. Waste should never be stored in your facility for more than one or two days.

If it is necessary to store medical waste on-site before final disposal:

Place waste in a closed area that is minimally accessible to staff, clients, and visitors. The contact of people with stored medical waste should be brought to minimum.

All containers should have lids to prevent accidental contamination, spillage, and access by insects, rodents, and other animals.

4. Final disposal

General waste--like household trash--can be taken to the regular community waste-disposal point for final collection and disposal.

5. Procedure on Solid Medical Waste Disposal
Solid medical waste should be disposed of on-site. The disposal process should be supervised and carried out by staff that is trained in the risks of disposing of solid medical waste. There are three options for the disposal of solid medical waste: burning, burying, and transporting.

5.1 Waste Elimination through Burning

Burning is the best option, since the high temperature destroys microorganisms and reduces the amount of waste. Burning in an incinerator or oil drum is recommended. Open burning is not recommended because it causes scattering of waste, is dangerous, and is unattractive. However, if open burning must be done, carry the waste to the site just before burning, and burn it in a designated area. Remain with the fire until it is completely out.

The burning process should be backed up with inflammation, observe that the waste is burned completely turning to ash. Ash is not contaminated waste and it may be buried. It is necessary to stay with the fire until it is burned off fully.

5.2 Burying of Waste

On-site burial is the next best option. To use burial, you must have space for a pit big enough for all the waste generated at the site. To bury the waste a big pit is needed in which the waste is thrown and collected. The pit should be surrounded by a fence or wall to limit access and to prevent scavenging of waste. The pit should be dug 50m far from the water source with 2 m depth and 1 m width. Everyday waste is covered with 10-15 cm layer, and the final upper layer should be 50-60 cm.

5.3 Transporting of Waste

If neither burning nor burial on site is possible, the waste must be transported for off-site disposal. If waste will be handled during transport by nonfacility staff (such as municipal trash removers), they must be educated about the cautions and risks regarding medical waste.

6. Procedure on Eliminating Liquid Medical Waste

- Always wear heavy utility gloves and shoes when handling or transporting liquid medical waste of any kind. When carrying or disposing of liquid medical waste, be careful to avoid plashing the waste on yourself, others, or on the floor and other surfaces.

- Cleaning solutions and disinfectants such as glutaraldehyde should be handled in the same way as liquid medical waste.

- Carefully pour liquid waste down a sink, drain, flushable toilet, or latrine. If this is not possible, bury it in a pit along with solid medical waste.

*Note:* Before pouring liquid waste down a drain or toilet, consider where the drain empties. It is hazardous for liquid medical waste to run through open gutters that empty onto the grounds of the facility.
• It is necessary to rinse the sink, drain, or toilet thoroughly with water to remove residual waste--again avoid splashing. Clean these areas with a disinfectant cleaning solution at the end of each day, or more frequently if heavily used or soiled.

• Decontaminate the container that held the liquid waste by filling it with or soaking it for 10 minutes in a 0.5% chlorine solution before washing. Wash your hands after handling liquid waste and decontaminate and wash gloves. (Proper decontamination and cleaning practices are discussed more in Appendix 8).

7. Secure Disposal of Sharps
- Needle sticks and punctures involving sharps often cause accidents and should be thrown into the special sharp disposal containers such as heavy cardboard boxes, metallic boxes with lids or plastic bottles.
- It is not permitted to take off needles from syringes with hands, bend or break needles or recap before disposal.
- Dispose of needles and syringes immediately after use in a puncture-resistant sharps-disposal container.
- Place used blades or broken pieces of glasses from ampoules in a puncture-proof sharps container.
- Dispose of the sharps container in a deep waste pit, a deep pit latrine or an incinerator.
- Dispose of syringe wrapper, needle caps and empty vials with other wastes
- To discourage scavenging of discarded sharps, decontaminate needles and syringes that cannot be incinerated and render them harmless before burying them.

7.1 Sharps Disposal through Containers
A sharps-disposal container is a puncture-resistant container used for the disposal of used needles and other sharps. A sharps container may be made out of:
• Heavy cardboard boxes;
• Empty plastic jugs;
• Metal containers.

Puncture-resistant sharps-disposal containers should be conveniently located in any area where sharp objects are frequently used (such as injection rooms, treatment rooms, operating theatres, labor and delivery rooms, and laboratories).
PROCEDURE ON
COLLECTION, TRANSPORT AND ELIMINATION OF
CONTAMINATED HOSPITAL WASTE

General Provisions

The medical waste management of any country is defined first of all according to the laws and regulations of the country. At present the Government of the Republic of Armenia has initiated a process of developing a new legislative field for medical waste management.

The midterm plan will serve as a transition basis for the implementation of a long-term and comprehensive program on the medical waste management. The program will probably involve steps to be undertaken in future by the health bodies and those managing the solid waste disposal issues towards the alternative system of the medical waste management.

1. Assignment of a person responsible for medical waste disposal
Within each health facility one staff member shall be assigned as a responsible person for managing medical waste disposal. The person may seek advices from the epidemiologist, Head/administrator of hospital or Chief Nurse.

2. Preliminary Training
It will be necessary to initiate a training program which provides information regarding classification and packing methods of the medical waste as well as on proper handling and managing them.

3. Main Classification and Separation
First, the medical waste should be clearly defined and identified. There are four classification of the medical waste which presents direct concerns for the country.

Table 3
Types of Special Hazardous Medical Waste

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricking/Cutting Waste</td>
<td>Subcutaneous injection needles, suturing needles, syringes, surgical knives and other sharps, lancets, saws, knives, brc</td>
</tr>
</tbody>
</table>
or solid glass, ampoules, hoses, pipettes and others which is not reused or reprocessed.

Cultures & Strains

Cultures from people, infection agents strains, thrown away alive and with weakened virulence vaccination and serum, serum, culture glass and other supplies used for transportin injecting or mixing cellular cultures.

Human blood, blood components and body fluids

Blood or blood components, sperms, vaginal secretions, spinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, sputum at stomatological procedures, body fluid contaminated with blood, dipping blood, or was decontaminated with the above mentioned fluids.

Waste accumulated in the result of isolated care

Decontaminated items/materials of patients suffering serious infectious diseases.

Pathological waste

Tissues, organs, anatomic waste removed during the surgery opening or other procedures (recognizable parts of the body except teeth).

4. Supplies/tanks foreseen for the Waste Collection and Transport

Medical waste should be collected in such tanks that meet the following interim minimal characteristics (it requires putting an international sign of biological danger).

<table>
<thead>
<tr>
<th>Waste Name</th>
<th>Characteristic of Tank or Bag</th>
<th>Supplies foreseen for 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricking/Cutting Waste</td>
<td>- Tank should be leak-proof, no leaking from the sides and bottom, and be solid.</td>
<td>- Empty plastic bottles with biological sign.</td>
</tr>
<tr>
<td></td>
<td>- Tank should have a biologically dangerous sign.</td>
<td>- Cardboard box with biologically dangerous sign.</td>
</tr>
<tr>
<td></td>
<td>- Tank should have a lid if used to transport pricking /cutting waste.</td>
<td>- Plastic solid box with biologically dangerous sign they may bear</td>
</tr>
<tr>
<td></td>
<td>Note: The emphasis should be made on not recapping needles.</td>
<td>&quot;Be cautious: pricking /cutting was</td>
</tr>
</tbody>
</table>

Table 4

Interim Characteristic of Waste Collection Leak-Proof Containers
<table>
<thead>
<tr>
<th>Category</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human blood, blood components and body fluid/solid and semi-fluid waste</td>
<td>- Plastic bags should be leak proof, prepared so that will not be torn or opened in using. Plastic bags should be placed in solid tank. Solid tank should be leak-proof, bear the sign of “Biologically Dangerous” or color code. - Plastic bag that is put in a yellow with the sign “Biologically Dangerous” or color code.</td>
</tr>
<tr>
<td>Waste accumulated in the result of isolated care</td>
<td>The same as above. The same as above – specify as waste in the result of isolated care.</td>
</tr>
<tr>
<td>Pathological waste</td>
<td>The same as above. The same as above – specify as pathological waste.</td>
</tr>
<tr>
<td>Non pricking Waste, liquid waste</td>
<td>- The tank should be leak-proof and solid. - The tank should have the sign “Biologically Dangerous” if used for the waste transportation. - Tank should be designed so as while transporting the containing would not spill off. - Bottles, vials, plastic tanks, contain with lids.</td>
</tr>
</tbody>
</table>

Biologically dangerous sign may be painted on tanks. The dustbins and bowls used for collecting medical waste should be washed and disinfected on a regular basis.

5. Transporting within a Health Facility

Ideally, transportation of medical waste should be conducted in hermetically closed tanks and performing effective infection preventing practices. Comparatively larger tanks or wheelbarrows used for the medical waste transportation should be closed. Persons transporting waste should always wear gloves. Tanks used for medical waste should be used only for that purpose. They should be cleaned and disinfected on a regular basis. Sewerage pipes should not be used for medical waste transportation since non-hermetically closed bags and tanks may be opened and create bioaerozols.

6. Storage (radioactive waste)

If there is a need for storage the area should meet the following parameters:

- Be protected from water, rain and wind.
- The storage area should be locked when not used (e.g. shelters or other storage areas) and prohibited for outsiders.
- Entrance into storage area should be permitted only for the authorized staff.
- Medical waste should be stored so that they are protected from animals, and the area is not serving for reproduction and feeding of insects and rodents.

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• The storage area should always be clean and free of other waste and immovable water. It should be disinfected every week and every time if there is a leak.
• Waste, when starting to decompose, i.e. to emit a smell, should be removed as soon as possible.

7. Interim processing and Transportation

One camera crematorium or open burning should be regarded as the final method for managing and processing for medical waste, except pathological waste.

As an interim solution the waste enumerated in the above three categories should be processed in one of or in combination of the following methods as illustrated in the Table below.

Microbiological cultures should not be transported as non processed waste; they should be disinfected in place through small autoclaves.

Table 5

<table>
<thead>
<tr>
<th>Name</th>
<th>METHODS</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricking/Cutting Waste</td>
<td>Wrap, transport and bury in a rubbish dump or pit on-site.</td>
<td></td>
</tr>
<tr>
<td>Human blood, blood components</td>
<td>Wrap, transport and bury in a rubbish dump or a pit on-site.</td>
<td>This method is recommended for big urban areas.</td>
</tr>
<tr>
<td>and body fluid (solid and semi-solid waste)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste from isolated care</td>
<td>Process in autoclave or chemicals, then bury in a dump or pit on-site.</td>
<td>As microbiological cultures, the waste accumulated from isolated care is processed considering the nature of infectious viruses.</td>
</tr>
<tr>
<td>Pathological Waste</td>
<td>Burn in crematorium, bury in cemeteries or on-site.</td>
<td></td>
</tr>
<tr>
<td>Glass for microbiological cultures</td>
<td>Autoclave, on-site.</td>
<td></td>
</tr>
<tr>
<td>Running blood and body fluids</td>
<td>Sanitary sewerage.</td>
<td>The method may be applied at all health facilities having sanitary sewerages.</td>
</tr>
<tr>
<td>Type</td>
<td>Samples</td>
<td>Collection &amp; maintenance conditions&lt;sup&gt;1&lt;/sup&gt;</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Wet</td>
<td>placenta, fetus, miscarriage, amputated organs, blood, pus, other biological substances, bandage supplies, Disposable supplies (urine catheters, blood transfusion systems,</td>
<td>&lt;ul&gt;&lt;li&gt;Leak-proof container&lt;/li&gt;&lt;li&gt;plastic bags&lt;/li&gt;&lt;/ul&gt;</td>
</tr>
</tbody>
</table>

---

<sup>1</sup> Collection, maintenance conditions and utilization type

---

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Technical

- Food leftovers and etc
- Waste bin with lid
- To be thrown general as waste bin after removal of the rubbish is separated by the container and fully closed firmly is subject to the utilization (should be destroyed)
- For the pit with 2 m depth and 1m length should be dug in 50 m far from the water source

Notes:

1. The container full by third forth and closed firmly is subject to the utilization (should be destroyed)
2. The pit with 2 m depth and 1m length should be dug in 50 m far from the water source
3. Liquid and biological waste should be carefully removed into the sewerage
Procedure on Linen Collection and Washing


One of the most important infection spread factors is bed clothes, linen used in the surgeries, and medical uniforms.

A special attention in organizing an appropriate epidemiological regime should be given to the accurate collection and washing of the linen used in obstetric inpatient facilities and newborns departments. The most practiced and applicable method is the automated washing method.

The linen should be washed in a laundry of a maternity facility, and in case of absence of the latter at the laundry of the hospital, but separately from linen of other departments.

In case the maternity linen is washed in the general laundry, the washing should be done one day specially assigned for it.

The dirty and clean linen should not be mixed in the washing process.

It is necessary to make sure that no sharps, surgical instruments or biological tissues are present in the linen to be washed.

Decontamination of linen is not practical and is not advised. Sterilization is done in the course of washing.

It is necessary to have written guideline on the infection prevention in a laundry. They are as follows:

• Hands hygiene;
• Application of individual protective means;
• Collection, sorting and transportation of the used linen;
• Linen washing, disinfection/bleaching;
• Drying, mending, ironing;
• Maintaining of clean linen and transporting to/from the department;
• Cleaning of washing machines and housekeeping of the laundry.

2. Supplies and means required for a laundry:

• Washing machines;
• Tanks for soaking;
• Straining, drying machines;
• Ironing machines;
• Running water (hot and cold);
• Bowls, buckets and cleaning supplies;
• Shelves for clean linen;
• Bleaching/disinfecting solution containing hydrogen or chloride;
• Washing powder, liquid or soap in piece, sodium;
• Individual shielding means:
  - Utility gloves;
  - Plastic apron;
  - Rubber boots;
  - Mask/shied.

3. Linen Sorting Procedure
Linen is sorted according to its color, type and contamination level (common and specific with albumen).

3.1 The procedure of automated washing of the especially contaminated (specific) linen is provided below:

**Table 8**

**Linen Washing Regime**

<table>
<thead>
<tr>
<th>Name of Action</th>
<th>Water Temperature °C</th>
<th>Duration, minutes</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soaking Preliminary soaking (I)</td>
<td>Cold water 25-30</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Soaking Preliminary soaking (II) 30-40</td>
<td></td>
<td>5</td>
<td>+sodium (1.5kg/100kg)</td>
</tr>
<tr>
<td>1 Washing</td>
<td>60-70</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Interim rinsing</td>
<td>70-100</td>
<td>20</td>
<td>+disinfection (400ml natrium hypochloride</td>
</tr>
</tbody>
</table>
In usual decontamination of linen rinsing is not performed and the washing time is restricted to 40-45 minutes.
PROCEDURE ON
ON ADMISSION AND TRANSFER OF PREGNANT WOMEN AND WOMEN IN DELIVERY TO THE SECOND OBSTETRIC HOSPITAL (INTENSIVE CARE WARD /BOX)

1. Admission to the second obstetrics hospital department (box) is granted to the pregnant and women in delivery who have:
   1.1 Increase of temperature (t 37.6°C and above, without other clinical signs);
   1.1 Long-term discharge of waters (discharge 12 and more hours before the hospitalization);

1.2 Diagnosed infection, including:
   - kidney and urine-genital tract inflammation (pyelonephritis, cystitis, undiagnosed bacteriologic urination, $10^5$ and more in 1 ml of urine);
   - inflammation diseases of different localization (acute stage of chronic bronchitis, pneumonia, otitis, etc);
   - acute infectious diseases of respiratory ways (flue, sore throat);
   - skin diseases of different contagious origin;
   - contagious processes of genitals (colpitis, cervicitis, candidoma);
   - High risk of intra-uterine and/or intranatal infection to fetus, as well as other infectious diseases with a big threat of contamination source to the medical personnel (HIV, Virus hepatitis B, C, D, syphilis, etc.);
   - High risk of intra-uterine and/or intranatal infection, as well as other infectious diseases, a big threat of contamination source to the medical personnel (Toxoplasmosis, listeriosis, cytomegalia, genital herpes, etc)
Pregnant and women in delivery with open types of tuberculosis are hospitalized to special obstetric hospitals (departments), and in the case of absence of those, to intensive care of second obstetric hospital for further transfer to the tuberculosis clinic.

1.4 Intra-uterine Death of Fetus.
1.5 Necessity for artificial disruption of pregnancy in the second quarter of pregnancy, due to medical indications and social conditions.
1.6 Malignant tumors.
1.7 Anomalies discovered in the development of fetus during pregnancy.
1.8 Women in labor who delivered out of hospitals (during 24 hours after deliver).
1.9 Absence of test papers and medical records.

2. Another group of pregnant, women in delivery and newly delivered women that are subject to transfer to the second obstetrics hospital (isolation ward or intensive care) from the other departments include the following:
2.1 Patients with fever (up to 38°C and above) during delivery or early postpartum period (temperature taken 3 times within an hour).
2.2 Unknown origin fever that lasts more than 1 day (the body temperature is above 37.6°C).
2.3 Postpartum inflammations (endometritis, wound infection, mastitis, etc.).
2.4 Symptoms of extra genital infectious diseases that do not require transfer to the specialized clinics (acute virus of respiratory ways, sore throat, herpes).
3. In all cases the newborn is left with the mother.
4. Pregnant, women in delivery and newly delivered women with contagious diseases should be hospitalized and transferred to the relevant hospitals.
5. In case of revealed inflammatory processes in pregnant, women in delivery and newly delivered women which further presence at the obstetric hospital bear the risk of epidemic they should be transferred to the relevant specialized facilities.
Securing Safety of Sharps

1. Rules on Safe Passing of Sharp Instruments

Uncapped or otherwise unprotected sharps should never be passed directly from one person to another. In the operating theatre or procedure room, pass sharp instruments in such a way that the surgeon and assistant are never touching the item at the same time. This way of passing sharps is known as the "hands-free" technique:

- The assistant places the instrument in a sterile kidney basin or in a designated "safe zone" in the sterile field.
- The assistant tells the service provider that the instrument is in the kidney basin or safe zone.
- The service provider picks up the instrument, uses it, and returns it to the basin or safe zone.

2. Giving Injections Safely

Unexpected client motion at the time of injection can lead to accidental needle sticks. Therefore, always warn women when you are about to give them an injection.

3. Syringe Recapping: The "one-hand" technique

Very often accidental needle sticks occur as staff tries to recap needles after their usage. Recapping is a dangerous practice; therefore it is necessary to dispose needles immediately without recappping them.

If it does become necessary for you to recap a needle (for example, to avoid carrying an unprotected sharp when immediate disposal is not possible), do not bend or break the needle and do not remove a hypodermic needle from the syringe by hand.

To safely recap needles, use the "one-hand" technique:
**Step 1**: Place the cap on a flat surface, and then remove your hand from the cap.

**Step 2**: With one hand, hold the syringe and use the needle to "scoop up" the cap.

**Step 3**: When the cap covers the needle completely, use the other hand to secure the cap on the needle hub. Be careful to handle the cap at the bottom only (near the hub).

---

### 4 Rules on Disposal of Needles and Sharps

Injection and puncture needles and sharps are the primary cause of waste-related accidents.

- To reduce the risk of the needle sticks, do not recap, bend, or break needles or try to remove the needles from the syringe before disposal.

- Although burning is the best way to dispose of medical waste, sharps are not destroyed by burning, except in large industrial incinerators. If an industrial incinerator is not available, sharps can be rendered harmless by placing needles, plastic syringes, and scalpels in a metal container that should be full up to its three-quarters.

- It is necessary to pour in fuel and inflame and burn it until the fire goes out on its own. In such case the plastic syringes will melt and, when cool, become a solid block of plastic, with the sharps embedded within the block. The block can then be buried in the type of burial pit used for solid medical waste.

- If it is not possible to bury all medical waste on site, sharps should be given priority for burial, since they pose the biggest risk of injury and infections.

- Always wash your hands after handling sharps containers.

- Always wear heavy utility gloves and shoes when handling sharps and other medical waste.
Appendix 14

Approved by
RA Minister of Health Decree
N__________
“ ”__________ 2004

Disinfection, Washing, High Level Disinfection and Chemical Sterilization of Endoscopes (Laparoscopes, Hysteroscopes)

Surgical endoscopes are thin instruments, which require accurate attitude in order to avoid injuries. Laparoscopes should undergo high level disinfection by rinsing in chemical substances. Glutaraldehyde and formaldehyde are the best chemical disinfectors as they do not damage rubber, plastic and lens glue.

The other HLD, e.g. 6% hydrogen peroxide and 0.1% chorine solution can cause corrosion.

Instructions prolonging life of laparoscopes:

- Wrong washing is the main cause of equipment problems. Sometimes it is very difficult to remove blood and other biological substances, which become source of infection.
- Never put the laparoscopes into the autoclave or boil it as high temperature damages the optics. You should use chemical disinfectors – glutaraldehyde or formaldehyde.
- Take out the instruments from the solution immediately after the necessary deadline. If you keep the instruments for a long time in the solution, it can reduce their life.
- Rinse thoroughly with cold, sterile water.
- Work with gloves. Forceps can damage the instruments.
- Don’t take several instruments at once.
- Take the telescope from the eye edge.
- Avoid putting the instruments and wires on each other for not damaging them.
- Do not use Savlon, which darkens optic lens.

How to Disinfect and Wash Laparoscopes their Usage
1. Immediately after the utilization, clean laparoscope, source of light, the wire and plastic tubes with 60-90% ethyl spirit or isopropyl spirit, thus removing blood and organic substances. Alcohol kills Hepatitis B and HIV agents quickly.

2. Disassemble laparoscopic equipment – surgical laparoscope, trocar, uterus manipulator, cervical clip, Verres or Touhy needles, phalop rings.

3. Put all the parts in a bowl with clean water and detergent.

4. Wash all the surfaces with soft cloth.

5. Clean the internal canals with circling motions, which do not push roughly.

6. Rinse thoroughly all the parts with clean water (under the tap or in the bowl). Use a brush for removing the detergent. If you don’t rinse well, it minimizes the effectiveness of its further processing.

7. Dry the equipment in the air or with clean, soft cloth.

8. Wash the lens minimum once a week and do not touch with fingers.

9. Perform DD (20 minutes) or sterilize (during the night) or there is no need to use them, put in the container. In order to avoid recontamination, DD should be done before utilization.

**How to wash lenses**

1. Before washing the proximal lens with acetone or take out their plastic parts with 60-90% spirit.

2. Wash with cotton swabs (wet spirit or acetone).

3. Do not touch the lens with fingers.

4. Wash minimum every week or more frequently.

**How to sterilize the laparoscope/hysteroscope**

1. Disinfect, wash and dry all the objects.

2. Put on the gloves in well-aired room and put he instruments in 8% formaldehyde or glutaraldehyde.

**Attention – don’t put the instruments on each other**

1. Close the container during disinfection (it prevents from steaming and dust).
2. Keep 8-10 hours in 2% glutaraldehyde and 24 hours in 8% formaldehyde (disinfection order). The room temperature should be not less than 20°C.
3. Put sterile gloves and take out the objects from the solution.
4. Rinse 2 times with sterile water. Use sterile brush for narrow holes
5. Dry in close, sterile container.

How to perform HLD of laparoscope/hysteroscope

1. Disinfect, wash and dry all the objects before HLDD.
2. Put on the gloves in well-aired room and put he instruments in formaldehyde or glutaraldehyde.
3. Cover the bowl.
4. Keep for 20 minutes.
5. Take out from 20 minutes.
6. Rinse 2 times for 20 minutes in boiled cooled water.
7. Dry the instruments in the air, in the container or with disinfected soft cloth and put them on the surgical table.

How to keep laparoscope/hysteroscope

1. Disinfect, wash and dry all the instruments.
2. Collect laparoscope and trocar.
3. Put in a special container and keep in a dry and cool place.
Indications for Transfer of Sick and Premature Newborns from Obstetric Hospitals to Newborn Reanimation Department

<table>
<thead>
<tr>
<th>Indications for transfer</th>
<th>Terms of transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborns with infection pathology</td>
<td>On the day of diagnosis</td>
</tr>
<tr>
<td>Diseases requiring immediate surgical intervention</td>
<td>Immediately after receiving the consent of the head of the specialized department</td>
</tr>
<tr>
<td>Emergency cases, conditioned by respiratory, cardiovascular insufficiency, affection of central nervous system, metabolic disorders</td>
<td>Immediately after the diagnosing and receiving consent of the head of the speckled department (in the 3rd level obstetric hospitals with relevant departments treatment can be organized on site)</td>
</tr>
<tr>
<td>Newborns with the need of intensive long-term artificial ventilation and monitoring of lungs</td>
<td>Immediately after receiving the consent of the rehabilitation department (in the 3rd level institutions treatment can be organized on site)</td>
</tr>
<tr>
<td>Newborns with sharp form of hemolytic disease, who need blood transfusion</td>
<td>Immediately after receiving the consent of the rehabilitation department (in several 3rd and 2nd level facilities treatment can be organized on site)</td>
</tr>
<tr>
<td>Premature newborns with the gestation age less than 32 weeks and weight less of 1,500 grams</td>
<td>In 5-6th day after birth, in case of presence of the indications, in particular if the sucking capacity is not sufficient (in the 3rd level obstetric hospitals, which have the facilities for second stage of newborn treatment, the treatment can be organized on site).</td>
</tr>
</tbody>
</table>
INSTRUCTIONS
ON INVESTIGATION AND ELIMINATION OF EPIDEMIC (GROUP)
NOSOCOMIAL INFECTIONS RECORDED IN WOMEN IN DELIVERY AND
INFANTS AT OBSTETRIC INPATIENT FACILITIES

1. Registration of five and more cases in women in delivery and newborn within one latent period (maximum seven days) which are connected with each other with one infection source and common transfer factors is regarded as nosocomial group infection (epidemic).

2. Investigation and measures for urgent elimination of the group diseases shall be conducted by medical preventive institution and SHEH territorial bodies. In case of registered nosocomial group infection the activity of the hospital shall be temporarily ceased, and the cases reported to the Ministry of Health in the defined order.

3. In cases of infections the following measures are necessary:
   3.1 To conduct complex anti-epidemic investigation by SHEH territorial bodies and hospital epidemiologist with the participation pathologist, communal hygiene physician, neonatologist, ob/gynecologist aimed at detecting unfavorable conditions and development of activities to eliminate group diseases.
   3.2 Stop admission of pregnant and woman in delivery to the maternity hospital (department).
   3.3 To provide reserve facility for the admission of pregnant and women in delivery.
   3.4 To define the hospital where infected infants should be transferred considering establishment of the most favorable conditions for their isolation, to organize 24-hour rehabilitation and intensive care services.

4. To investigate the group morbidity the following steps should be conducted:
   4.1 To conduct analysis of NI in women in delivery and newborns at the concrete facility and its functional institutions:
      - During the epidemic days;
- During one month preceding the group infection;
- For a longer period if necessary.

4.2 To examine NI peculiarities of clinical progress in women in delivery and newborns.

4.3 To examine the structure of origin and characteristics of extracted agents.

4.4 To identify the origin of the NI structure (microbe carrier) and the morbidity of the infection diseases in women in delivery and newborns.

4.5 To conduct analysis of the results for sanitary and epidemiologic examination of the environment and objects.

4.6 To define the sources of the infection.

4.7 To define main ways of transfer and reasons of the originated morbidity.

4.8 Develop and implement complex anti-epidemic measures for NI infection localization.

5. Analysis of the HI morbidity at obstetric hospitals shall be carried out with regards to the documents provided below:

- Official documents for registration of infectious diseases (“Emergency reporting on infectious diseases, cases of acute food and professional poisoning and unusual post-vaccination reaction”);

- Results of analysis of labor history (form N096h) and newborn progress history (form N097).

- Results of analysis of department (ward) log for newborns (form # 102 h) and surgical interventions log of hospitals (form # 008h);

- Morbidity data received from pediatric clinics, hospitals, women consultations, obstetric and surgical departments of adult;

- Records of diagnostic-anatomic examinations (form # 013h)

- Results of life and post-death analysis (for those who died during last 3 months) for women in delivery and newborns, data of the civil status act registration organizations;

Data of bacteriological analysis and clinical signs provide information on the rates of the NI group infection at the hospital and in all newborns discharged a week before registration of the first cases of morbidity.

6. In examining the peculiarities of NI clinical progress the following facts should be considered:
- beginning of the disease (in the form of gastroenteritis, if infected through digestive tract, slow development of clinical signs, if infected through everyday contacts, critical septic form, if infected in 1-2 days after birth during processing of the wound area of umbilical cord, etc);
- ratio of light and critical forms (the prevalence of average critical condition and critical cases is typical in case of digestive tract infections connected with the fluid medication and artificial feeding, and comparative light forms come through everyday contacts);
- Ratio of spread (generalized) and NI localized forms.

7. To study the structure of origin and characteristics of the extracted agents of NI it is necessary to examine:
   - substance out of closed diagnostic focus (provides most accurate results);
   - discharge from diagnostic focus (defined by quantity of the agent);
   - discharges (urine, feces, sputum) depending on clinical signs;
   - blood (during septicemia and sepsis);
   - cerebrospinal fluid (during meningitis);
   - Substance of bedside nursing persons.

It is necessary to categorize the extracted agents by types through definition of gender carrier, phago carrier, antibiotic gram and plazmodic profile.

Mono- and poly - typization of the agents helps to define the ways and factors of transfer and solve the problem of the factors.

8. Infectious disease morbidity in medical personnel is investigated for the previous 1-3 months in accordance with the following:
   - Facts of sick-leave;
   - Log for actually worked days;
   - Ambulatory control data.

8.1 In order to define the NI source during NI epidemic, clinical and bacteriological examination of the medical personnel shall be carried out.

8.2 In case of staphylococcus nature of the infection (staphylococcus aureus), the medical personnel shall be examined for staphylococcus infection (smear from front nasal membrane). With Streptococci infection pharynx smear shall be examined.

In cases with infection of gram-negative origin, attention shall be focused on long-term kidney discharge (pyelonephritis) and results of the examination of intestinal disorders.
In case of epidemic with signs of salmonellosis and intestinal disorders, bacteriologic examinations shall be carried out.

In cases with candida and fungi infection nasopharynx shall be examined.

9. Analysis of the results of the hospital infection shall be supported with the list of names of the patients.

- Names of the patients with mortal cases caused by hospital group infection at obstetric hospitals (Table 1);
- Newborns and women in delivery who got infected or died in the result of everyday contact with infected patients (Table 2);
- Women in delivery and newborns who got infected during 1-3 months prior to epidemic (Table 3);
- Morbidity cases registered in medical personnel during 1-3 months prior to epidemic (Table 4).

10. In case of group infection the infection sources should be detected through the results of clinical and bacteriologic analysis conducted in women in delivery, newborns and medical personnel.

11. In order to define internal and external origin of the infection, it is necessary to enlarge the scope of sanitary-bacteriologic analysis so that it should cover epidemic nature and supposed factor of origin (Table 5).

Data about internal types of extracted agents of the infection help to define the exact tracts and factors of the transmission.

12. Conclusion about main types of epidemic infection (food, everyday contact, water), and factors (types of medicine, sterilized milk, mixtures of milk, instruments, equipment, hands, etc) are based on the results of the examination of women in delivery, infant and personnel and go in parallel with sanitary-bacteriologic examination of the environmental objects, such as saturation with technical equipment of the obstetric (department), sanitary conditions, anti-epidemic regime of units and prevention awareness of the medical personnel.

13. It is necessary to define the conditions that provoke the group infection. They can be as follows:

- Late diagnose, isolation and transfer of patients;
- Treatment of the NI infection at obstetric hospitals;
- Incompliance with the norms of ward occupancy rotation;
- Violation in activities of the centralized sterile department, drug store, milk room and disinfection camera in central bacteriologic department, drug store, milk room;
- Use of not disinfected linen;
- Disruptions in laundry-work and bedclothes provision;
- Incompliance with sanitary – and -hygienic and anti-epidemiologic norms by medical personnel;
- Poor condition of water and energy supply, heating and ventilation system;
- Lack of detergents, disinfection and bactericidal means;
- Irrelevant hospital capacity vs. number of delivery;
- Poor technical saturation of the obstetric hospital (department).

14. The conclusion about the analysis of the NI in newborns, structure of their origin, peculiarities of the clinical progress, conditions promoting occurrence of group diseases, types of anti-epidemic activity, infection source, main ways and factors promoting transfer of infection origin.

   Based on the conclusion the preventive and anti-epidemical complex measures for the localization and elimination of the NI group infectious diseases are developed and implemented.

15. The suggested complex measures aimed at the elimination of the group diseases shall incorporate the requirements for the elimination of gaps detected at obstetric hospital as well as proposals on preventing the further epidemic complications. The final data regarding the investigation of the infection together with the initiated measures shall be submitted to the RA Ministry of Health.
Mortal and Morbidity Cases of Newborns during Registered Group Infectious Diseases at Materni

<table>
<thead>
<tr>
<th>N</th>
<th>Full Name</th>
<th>Delivery History (# of newborn progress) card #</th>
<th>Department, room #</th>
<th>Timetable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Admission</td>
<td>Delivery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Department Flow</td>
<td>Dischar (transfe death)</td>
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<tr>
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<td>3.</td>
<td>4.</td>
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<td>7.</td>
<td>8.</td>
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<table>
<thead>
<tr>
<th>Preliminary, final &amp; pathological/anatomic diagnosis</th>
<th>Microbiological analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examination results</td>
<td>Test date</td>
</tr>
</tbody>
</table>
### LIST OF NAMES

Bacteriological Examination Results of Women in Delivery and Newborns Contacted

<table>
<thead>
<tr>
<th>N</th>
<th>Full Name</th>
<th>Labor history (newborn progress) card #</th>
<th>Department, room #</th>
<th>Timetable</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hospital admission</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

### LIST OF NAMES

Bacteriological Examination Results of Women in Delivery and Newborns Infected at Maternity Hospital

Morbidity Case

<table>
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<tr>
<th>N</th>
<th>Full name</th>
<th>Delivery history (newborn progress) card #</th>
<th>Department, room #</th>
<th>Timetable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Labor</td>
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<td></td>
</tr>
</tbody>
</table>
LIST OF NAMES

Medical Personnel and Bacteriological Examination Results

<table>
<thead>
<tr>
<th>N</th>
<th>Full Name</th>
<th>Position</th>
<th>Department, room #</th>
<th>Morbidity during preceding 3 months Dates</th>
<th>Diagnosis</th>
<th>Date of return to duty</th>
<th>B. e</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2.</td>
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<td>4.</td>
<td>5.</td>
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<td>7.</td>
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</table>

Environmental Objects Examination Results

<table>
<thead>
<tr>
<th>Departments</th>
<th>Test</th>
<th>Test</th>
<th>Bathing</th>
<th>N of</th>
<th>of which</th>
</tr>
</thead>
</table>

86
<table>
<thead>
<tr>
<th>dates</th>
<th>place</th>
<th>number</th>
<th>positive outcome</th>
<th>Intestinal bacillus</th>
<th>Staphylococcus</th>
<th>Clebsiella</th>
<th>Blue pus bacillus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2.</td>
<td>3.</td>
<td>4.</td>
<td>5.</td>
<td>6.</td>
<td>7.</td>
<td>8.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Test date</th>
<th>Test place</th>
<th>N of tests</th>
<th>N of positive outcomes</th>
<th>Total number of bacilli in $10^3$</th>
<th>N of staphylococci in $10^3$</th>
<th>Other types of agents</th>
<th>Test date &amp; place</th>
<th>Tested substance</th>
</tr>
</thead>
</table>
6,7,8,9,10,11,12,17,18,19 columns should bear the complete identity of the extracted cultures providing type.

16,17,18,19, 25, 26 columns should include the results of all tests with the positive outcomes.
INSTRUCTION
HOSPITALIZATION OF PREGNANT WOMEN TO OBSTETRIC DAY CARE BED DEPARTMENT

Day care bed hospitals are organized for pregnant women with obstetric and extra genital diagnose not requiring a 24-hour control and treatment, but who need medical and diagnose assistance during daytime.

Selection of the pregnant women for day care bed inpatient facilities depends on the capacity of the diagnostic laboratory of the institution, availability of various specialists, social-economic peculiarities and local conditions.

The pregnant women with extra genital diseases can be referred to day care bed hospital in accordance with the profile of the disease.

Instructions on hospitalization of pregnant women to day care bed hospital

Admission to day care bed hospital is granted to the pregnant who:

- neurocirculatory dystonia and chronic hypertonsia (during I and II quarter);
- acute attack of chronic gastritis;
- leukemia, drop in hemoglobin, under 70 g/l;
- extra genital diseases that require diagnostic examination;
- early hestosis with presence or absence of keton urination;
- necessity for assessment of intrauterine condition of the fetus;
- suspicion for fetoplacental deficiency (for diagnose and treatment);
- history of pregnancy in critical period, without clynical signs for the risk of miscarriage;
- istmico-cervical deficiency (stitches on womb before writing –out);
- other obstetric complications, that do not require 24 hour medical care;
- To ensure absence of the risk of miscarriage in high risk group of pregnant to carry out genetic examinations with invasive methods (amniocentes, biopsy of chorion, etc.);
- necessity for non-medical treatment (accupuncture, psycho-reflexotherapy, psycho- and hypnotherapy, etc);
- long stay at the hospital (for control and continued treatment);
- Artificial abortion before 12 weeks.

In case of deterioration of the disease and necessity for 24 hour medical control the pregnant women should be transferred to the relevant hospital immediately.

The permit for hospitalization is issued by the obstetrician/gynecologist of women consultation. For the hospitalization a referral, discharge card of the pregnant and women in delivery (form # 111/h) is issued or,

In case of pregnancy over 28 weeks the registration card (form #113/h) is issued.

On admission to day care bed hospital, the pregnant women should submit a passport, hospitalization referral together with the diagnosis, personal card on the write-out (#111/h) or registration card (#113/h).

Primary admission (registration) takes place in the reception unit of the hospital after medical examination conducted by the physician.

The reception unit fills in the medical document (form # 96/h), records the admission of the pregnant woman in the admission and (form 002/h) respective log.

The day care bed department observes the sanitary and hygienic norms existing for such facilities according to the normative documents.

Medical equipment, instruments and medication of day care bed hospital are the same as of pathology department for pregnant women.

Common Terms

1. **Cleaning** means to remove dirt by use of soap and water. It is very important to remove all substances from the surfaces of the instruments and equipment before disinfecting or sterilizing.

2. **Disinfecting** - making equipment and materials safe to be used for procedures on clients. Items that have been disinfected can safely come in contact with broken skin and mucous membranes. Boiling or soaking in chlorine or chloramine solution is methods for disinfecting

3. **High Level Disinfection** - killing all germs, except endospores and making equipment and materials safe to be used for procedures on clients.
4. **Sterilizing** - killing all germs and making equipment and materials safe for use on clients. All objects that will enter a client’s bloodstream or pierce a client’s skin, such as needles, syringes and scalpels, must be sterile. Instruments processed in an autoclave are sterile.

5. **Antiseptic** - a solution that kills or reduces the growth of germs on the skin and other body tissues. Antiseptic (e.g., Hibitane), when mixed, should be used within 24 hours to avoid attracting germs.