The US Influenza Hospitalization Surveillance Network

Technical Appendix

The following pages show the form used to collect information on demographic characteristics and clinical course of illness during hospitalization for each laboratory-confirmed influenza case through review of medical records.
| Case ID: __ __ 1 3 1 4 __ __ |

# 2013-14 FluSurv-NET Influenza Hospitalization Surveillance Project Case Report Form

## A. Patient Data – THIS INFORMATION IS NOT SENT TO CDC

<table>
<thead>
<tr>
<th>Last Name:</th>
<th>First Name:</th>
<th>Phone Number 1:</th>
<th>Phone Number 2:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Street Address:</th>
<th>City:</th>
<th>Zip:</th>
</tr>
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<table>
<thead>
<tr>
<th>Chart Number</th>
<th>Census Tract:</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Emergency Contact 1:</th>
<th>Emergency Contact Phone:</th>
</tr>
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<tbody>
<tr>
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<table>
<thead>
<tr>
<th>Primary Provider Name:</th>
<th>Provider Phone Number:</th>
<th>Provider Fax Number:</th>
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<tbody>
<tr>
<td></td>
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<table>
<thead>
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<th>Site Use 1:</th>
<th>Site Use 2:</th>
<th>Site Use 3:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

## B. Reporter Information – THIS INFORMATION IS NOT SENT TO CDC

<table>
<thead>
<tr>
<th>1. Reporter Name:</th>
<th>2. Date Reported:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## C. Enrollment Information

### 1. Case Classification:
- [ ] Prospective Surveillance
- [ ] Discharge Audit

### 2. Admission Type:
- [ ] Hospitalization
- [ ] Observation Only

### 3. County:

### 4. State:

## C. Enrollment Information

### 5. Case Type:
- [ ] Pediatric
- [ ] Adult

### 6. Date of Birth: / /  /

### 7. Age:
- [ ] Years
- [ ] Months (if < 1 yr)

### 8. Sex:
- [ ] Male
- [ ] Female

### 9. Race:
- [ ] White
- [ ] Black or African American
- [ ] Asian/Pacific Islander
- [ ] American Indian or Alaska Native
- [ ] Multiracial
- [ ] Not specified

### 10. Ethnicity:
- [ ] Hispanic or Latino
- [ ] Non-Hispanic or Latino
- [ ] Not Specified

### 11. Hospital ID Where Patient Treated: ____________

### 11a. Admission Date: ___ / ___ / ___

### 11b. Discharge Date: ___ / ___ / ___

### 12. Was patient transferred from another hospital?
- [ ] Yes
- [ ] No
- [ ] Unknown

### 12a. Transfer Hospital ID: ____________

### 12b. Transfer Hospital Admission Date: ___ / ___ / ___

### 12c. Transfer Date: ___ / ___ / ___

### 13. Where did patient reside at the time of hospitalization?

<table>
<thead>
<tr>
<th>Indicate TYPE of residence.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ] Private residence</td>
</tr>
<tr>
<td>[ ] Rehabilitation facility</td>
</tr>
<tr>
<td>[ ] Group home/Retirement home</td>
</tr>
<tr>
<td>[ ] Assisted living/Residential care</td>
</tr>
<tr>
<td>[ ] Nursing home</td>
</tr>
<tr>
<td>[ ] Other, specify: _________</td>
</tr>
</tbody>
</table>

### 13a. If resident of a facility, indicate NAME of facility:

## D. Influenza Testing Results

### 1. Test 1:
- [ ] Rapid
- [ ] RT-PCR
- [ ] Viral Culture
- [ ] Serology
- [ ] Fluorescent Antibody
- [ ] Method Unknown/Note Only

#### 1a. Result:
- [ ] Flu A (not subtyped)
- [ ] Flu B
- [ ] Flu A & B
- [ ] Flu A/B (Not Distinguished)
- [ ] 2009 H1N1
- [ ] H1, Seasonal
- [ ] H1, Unspecified
- [ ] H3
- [ ] Flu A, Unsubtypable
- [ ] Negative
- [ ] Unknown
- [ ] Other, specify: ____________________

#### 1b. Specimen collection date: ___ / ___ / ___

#### 1c. Testing facility ID: ____________________

#### 1d. Specimen ID: _______________________

### 2. Test 2:
- [ ] Rapid
- [ ] RT-PCR
- [ ] Viral Culture
- [ ] Serology
- [ ] Fluorescent Antibody
- [ ] Method Unknown/Note Only

#### 2a. Result:
- [ ] Flu A (not subtyped)
- [ ] Flu B
- [ ] Flu A & B
- [ ] Flu A/B (Not Distinguished)
- [ ] 2009 H1N1
- [ ] H1, Seasonal
- [ ] H1, Unspecified
- [ ] H3
- [ ] Flu A, Unsubtypable
- [ ] Negative
- [ ] Unknown
- [ ] Other, specify: ____________________

#### 2b. Specimen collection date: ___ / ___ / ___

#### 2c. Testing facility ID: ____________________

#### 2d. Specimen ID: _______________________

### 3. Test 3:
- [ ] Rapid
- [ ] RT-PCR
- [ ] Viral Culture
- [ ] Serology
- [ ] Fluorescent Antibody
- [ ] Method Unknown/Note Only

#### 3a. Result:
- [ ] Flu A (not subtyped)
- [ ] Flu B
- [ ] Flu A & B
- [ ] Flu A/B (Not Distinguished)
- [ ] 2009 H1N1
- [ ] H1, Seasonal
- [ ] H1, Unspecified
- [ ] H3
- [ ] Flu A, Unsubtypable
- [ ] Negative
- [ ] Unknown
- [ ] Other, specify: ____________________

#### 3b. Specimen collection date: ___ / ___ / ___

#### 3c. Testing facility ID: ____________________

#### 3d. Specimen ID: _______________________

### 4. Test 4:
- [ ] Rapid
- [ ] RT-PCR
- [ ] Viral Culture
- [ ] Serology
- [ ] Fluorescent Antibody
- [ ] Method Unknown/Note Only

#### 4a. Result:
- [ ] Flu A (not subtyped)
- [ ] Flu B
- [ ] Flu A & B
- [ ] Flu A/B (Not Distinguished)
- [ ] 2009 H1N1
- [ ] H1, Seasonal
- [ ] H1, Unspecified
- [ ] H3
- [ ] Flu A, Unsubtypable
- [ ] Negative
- [ ] Unknown
- [ ] Other, specify: ____________________

#### 4b. Specimen collection date: ___ / ___ / ___

#### 4c. Testing facility ID: ____________________

#### 4d. Specimen ID: _______________________

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[Image 36x755 to 127x780]

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### E. Admission and Patient History

1. Was patient discharged from any hospital within one week prior to the current admission date?  
   - [ ] Yes  
   - [ ] No  
   - [ ] Unknown

2. Acute conditions at admission (Check all that apply):  
   - [ ] Acute respiratory illness  
   - [ ] Asthma and/or COPD exacerbation  
   - [ ] Fever  
   - [ ] Pneumonia  
   - [ ] Other respiratory or cardiac conditions  
   - [ ] Other, neither respiratory nor cardiac conditions  
   - [ ] Unknown

3. Date of onset of acute respiratory symptoms:  
   - [ ] / /  
   - [ ] Unknown

3a. If no respiratory symptoms, date of onset of acute illness resulting in hospitalization:  
   - [ ] / /  
   - [ ] Unknown

4. Body Mass Index:  
   - [ ] Unknown

5. Height:  
   - [ ] Inches  
   - [ ] Cm  
   - [ ] Unknown

6. Weight:  
   - [ ] Lbs  
   - [ ] Kg  
   - [ ] Unknown

7. Smoker:  
   - [ ] Current  
   - [ ] Former  
   - [ ] No/Unknown

8. Alcohol abuse:  
   - [ ] Current  
   - [ ] Former  
   - [ ] No/Unknown

9. Did patient have any of the following pre-existing medical conditions? Check all that apply.  
   - [ ] Yes  
   - [ ] No  
   - [ ] Unknown

9a. Asthma/Reactive Airway Disease  
   - [ ] Yes  
   - [ ] No/Unknown

9b. Chronic Lung Disease  
   - [ ] Yes  
   - [ ] No/Unknown
   - [ ] Cystic fibrosis  
   - [ ] Emphysema/COPD  
   - [ ] Other, specify ____________________________

9c. Chronic Metabolic Disease  
   - [ ] Yes  
   - [ ] No/Unknown
   - [ ] Diabetes  
   - [ ] Thyroid dysfunction  
   - [ ] Other, specify ____________________________

9d. Blood disorders/Hemoglobinopathy  
   - [ ] Yes  
   - [ ] No/Unknown
   - [ ] Sickle cell disease  
   - [ ] Splenectomy/Asplenia  
   - [ ] Thrombocytopenia  
   - [ ] Other, specify ____________________________

9e. Cardiovascular Disease  
   - [ ] Yes  
   - [ ] No/Unknown
   - [ ] Atherosclerotic cardiovascular disease (ASCVD)  
   - [ ] Cerebral vascular incident/Stroke  
   - [ ] Congenital heart disease  
   - [ ] Coronary artery disease (CAD)  
   - [ ] Heart failure/CHF  
   - [ ] Other, specify ____________________________

9f. Neuromuscular disorder  
   - [ ] Yes  
   - [ ] No/Unknown
   - [ ] Duchenne muscular dystrophy  
   - [ ] Muscular dystrophy  
   - [ ] Multiple sclerosis  
   - [ ] Mitochondrial disorder  
   - [ ] Myasthenia gravis  
   - [ ] Other, specify: ____________________________

9g. Neurologic disorder  
   - [ ] Yes  
   - [ ] No/Unknown
   - [ ] Cerebral palsy  
   - [ ] Cognitive dysfunction  
   - [ ] Dementia  
   - [ ] Developmental delay  
   - [ ] Down syndrome  
   - [ ] Plegias/Paralysis  
   - [ ] Seizure/Seizure disorder  
   - [ ] Other, specify: ____________________________

9h. History of Guillain-Barré Syndrome  
   - [ ] Yes  
   - [ ] No/Unknown

9i. Immunocompromised Condition  
   - [ ] Yes  
   - [ ] No/Unknown
   - [ ] AIDS or CD4 count < 200  
   - [ ] Cancer diagnosis in last 12 months  
   - [ ] Complement deficiency  
   - [ ] HIV Infection  
   - [ ] Immunoglobulin deficiency  
   - [ ] Immunosuppressive therapy  
   - [ ] Organ transplant  
   - [ ] Stem cell transplant (e.g., bone marrow transplant)  
   - [ ] Steroid therapy (taken within 2 weeks of admission)  
   - [ ] Other, specify ____________________________

9j. Renal Disease  
   - [ ] Yes  
   - [ ] No/Unknown
   - [ ] Chronic kidney disease/chronic renal insufficiency  
   - [ ] End stage renal disease/Dialysis  
   - [ ] Glomerulonephritis  
   - [ ] Nephrotic syndrome  
   - [ ] Other, specify ____________________________

9k. Other  
   - [ ] Yes  
   - [ ] No/Unknown
   - [ ] Liver disease (e.g., cirrhosis, chronic hepatitis, hepatitis C)  
   - [ ] Morbidly obese (ADULTS ONLY)  
   - [ ] Obese  
   - [ ] Pregnant  
   - [ ] If pregnant, specify gestational age in weeks: ________  
   - [ ] Unknown gestational age  
   - [ ] Post-partum (two weeks or less)  
   - [ ] Other, specify ____________________________

9l. PEDIATRIC CASES ONLY

9l.1 Abnormality of upper airway  
   - [ ] Yes  
   - [ ] No/Unknown

9l.2 History of febrile seizures  
   - [ ] Yes  
   - [ ] No/Unknown

9l.3 Long-term aspirin therapy  
   - [ ] Yes  
   - [ ] No/Unknown

9l.4 Premature  
   - [ ] Yes  
   - [ ] No/Unknown
   - [ ] (gestation age < 37 weeks at birth for patients < 2yrs)  
   - [ ] If yes, specify gestational age at birth in weeks: ________  
   - [ ] Unknown gestational age at birth
**F. Intensive Care Unit and Interventions**

<table>
<thead>
<tr>
<th>1. Was the patient admitted to an intensive care unit (ICU)?</th>
<th>□ Yes □ No □ Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. Number of ICU Admissions</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>1b. Date of first ICU Admission:</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>1c. Date of first ICU Discharge</td>
<td>□ Unknown</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Did patient receive mechanical ventilation?</th>
<th>□ Yes □ No □ Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Did patient receive extracorporeal membrane oxygenation (ECMO or ‘on bypass’)?</td>
<td>□ Yes □ No □ Unknown</td>
</tr>
</tbody>
</table>

**G. Bacterial Pathogens – Sterile or respiratory site only**

<table>
<thead>
<tr>
<th>3a. If yes, specify Pathogen 1:</th>
<th>□ Blood □ Cerebrospinal fluid (CSF) □ Bronchoalveolar lavage (BAL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3b. Date of culture:</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>3c. Site where pathogen identified:</td>
<td>□ Blood □ Cerebrospinal fluid (CSF) □ Bronchoalveolar lavage (BAL)</td>
</tr>
<tr>
<td>4a. Specify Pathogen 2:</td>
<td>□ Blood □ Cerebrospinal fluid (CSF) □ Bronchoalveolar lavage (BAL)</td>
</tr>
<tr>
<td>4b. Date of culture:</td>
<td>□ Unknown</td>
</tr>
</tbody>
</table>

**H. Viral Pathogens**

<table>
<thead>
<tr>
<th>1a. Respiratory syncytial virus/RSV</th>
<th>□ Yes □ No □ Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>1b. Adenovirus</td>
<td>□ Yes □ No □ Unknown</td>
</tr>
<tr>
<td>1c. Parainfluenza 1</td>
<td>□ Yes □ No □ Unknown</td>
</tr>
<tr>
<td>1d. Parainfluenza 2</td>
<td>□ Yes □ No □ Unknown</td>
</tr>
<tr>
<td>1e. Parainfluenza 3</td>
<td>□ Yes □ No □ Unknown</td>
</tr>
<tr>
<td>1f. Human metapneumovirus</td>
<td>□ Yes □ No □ Unknown</td>
</tr>
<tr>
<td>1g. Rhino virus</td>
<td>□ Yes □ No □ Unknown</td>
</tr>
</tbody>
</table>

**I. Influenza Treatment**

<table>
<thead>
<tr>
<th>2a. Treatment 1:</th>
<th>□ Oseltamivir (Tamiflu) □ Zanamivir (Relenza) □ Other, specify:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2b. Method of Administration:</td>
<td>□ Oral □ Intravenous (IV) □ Inhaled □ Unknown</td>
</tr>
<tr>
<td>2c. Start Date:</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>2d. End Date:</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>2e. Dose</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>2f. Frequency</td>
<td>□ Frequency Unknown</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3a. Treatment 2:</th>
<th>□ Oseltamivir (Tamiflu) □ Zanamivir (Relenza) □ Other, specify:</th>
</tr>
</thead>
<tbody>
<tr>
<td>3b. Method of Administration:</td>
<td>□ Oral □ Intravenous (IV) □ Inhaled □ Unknown</td>
</tr>
<tr>
<td>3c. Start Date:</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>3d. End Date:</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>3e. Dose</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>3f. Frequency</td>
<td>□ Frequency Unknown</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>4a. Treatment 3:</th>
<th>□ Oseltamivir (Tamiflu) □ Zanamivir (Relenza) □ Other, specify:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4b. Method of Administration:</td>
<td>□ Oral □ Intravenous (IV) □ Inhaled □ Unknown</td>
</tr>
<tr>
<td>4c. Start Date:</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>4d. End Date:</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>4e. Dose</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>4f. Frequency</td>
<td>□ Frequency Unknown</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5a. Treatment 4:</th>
<th>□ Oseltamivir (Tamiflu) □ Zanamivir (Relenza) □ Other, specify:</th>
</tr>
</thead>
<tbody>
<tr>
<td>5b. Method of Administration:</td>
<td>□ Oral □ Intravenous (IV) □ Inhaled □ Unknown</td>
</tr>
<tr>
<td>5c. Start Date:</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>5d. End Date:</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>5e. Dose</td>
<td>□ Unknown</td>
</tr>
<tr>
<td>5f. Frequency</td>
<td>□ Frequency Unknown</td>
</tr>
</tbody>
</table>

**6. Additional Treatment Comments:**
### 2013-14 FluSurv-NET Influenza Hospitalization Surveillance Project Case Report Form

**J. Chest Radiograph – Based on radiology report only**

1. **Was a chest x-ray taken within 3 days of admission?**
   - Yes
   - No
   - Unknown

2. **Were any of these chest x-rays abnormal?**
   - Yes
   - No
   - Unknown

2a. **Date of first abnormal chest x-ray:** ____________

2b. **For first abnormal chest x-ray, please check all that apply:**
   - Report not available
   - Consolidation
   - Interstitial infiltrate
   - Air space density/opacity
   - Atelectasis
   - Pleural effusion/empyema
   - Bronchopneumonia/pneumonia
   - Cavitiation
   - Lobar (NOT interstitial) infiltrate
   - Cannot rule out pneumonia
   - ARDS (acute respiratory distress syndrome)
   - Other

2c. **Please specify location for bronchopneumonia/pneumonia/consolidation/lobar infiltrate/air space density/opacity:**
   - Single lobar
   - Multiple lobar (unilateral)
   - Multiple lobar (bilateral)
   - Unknown

**K. Discharge Summary**

1. **Did the patient have any of the following diagnoses at discharge (check all that apply)?**
   - [ ] Pneumonia
   - [ ] Guillain-Barré syndrome
   - [ ] Acute encephalopathy/encephalitis
   - [ ] Seizures
   - [ ] Reye’s syndrome
   - [ ] Reye’s syndrome
   - [ ]BAR (ARDS)
   - [ ] Cavitation
   - [ ] Atelectasis
   - [ ] Consolidation
   - [ ] Interstitial infiltrate
   - [ ] Lobar (NOT interstitial) infiltrate
   - [ ] Pleural effusion/empyema
   - [ ] ARDS (acute respiratory distress syndrome)
   - [ ] Other

2. **What was the outcome of the patient?**
   - [ ] Alive
   - [ ] Deceased
   - [ ] Unknown

2a. **If discharged alive, please indicate to where:**
   - [ ] Home
   - [ ] Home with Services
   - [ ] Group home/Retirement home
   - [ ] Other, specify: _____________________
   - [ ] Hospice/Home hospice
   - [ ] Assisted living/Residential Care
   - [ ] Unknown
   - [ ] Other hospital
   - [ ] Other, specify: _____________________
   - [ ] Homeless/Shelter
   - [ ] Other, specify: _____________________

3. **If patient was pregnant on admission, indicate pregnancy status at discharge:**
   - [ ] Still pregnant
   - [ ] No longer pregnant
   - [ ] Unknown

3a. **If patient was pregnant on admission but no longer pregnant at discharge, indicate pregnancy outcome at discharge:**
   - [ ] Miscarriage
   - [ ] Ill newborn
   - [ ] Newborn died
   - [ ] Healthy newborn
   - [ ] Abortion
   - [ ] Unknown

4. **Additional notes regarding discharge:**

   ______________________________________________________

**L. ICD-9 or ICD-10 Discharge Diagnoses – To be recorded in order of appearance**

<table>
<thead>
<tr>
<th>Version:</th>
<th>ICD-9</th>
<th>ICD-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
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<tr>
<td>3.</td>
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<td>4.</td>
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<tr>
<td>5.</td>
<td></td>
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<tr>
<td>6.</td>
<td></td>
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<tr>
<td>7.</td>
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</tbody>
</table>

**M. Vaccination History**

1. **Did patient receive the influenza vaccine for the current influenza season?**
   - [ ] Yes
   - [ ] No
   - [ ] Unknown

   **Specify vaccination status and date(s) by source:**

   **Medical Chart**
   - [ ] Yes
   - [ ] Yes, specific date unknown
   - [ ] No
   - [ ] Unknown
   - [ ] Not checked

   **Vaccine Registry**
   - [ ] Yes
   - [ ] Yes, specific date unknown
   - [ ] No
   - [ ] Unknown
   - [ ] Not checked

   **Interview**
   - [ ] Patient
   - [ ] Proxy
   - [ ] Yes
   - [ ] Yes, specific date unknown
   - [ ] No
   - [ ] Unknown
   - [ ] Not checked

   **Other, specify:**

   **If patient < 9 years, did patient receive any seasonal influenza vaccine in previous seasons?**
   - [ ] Yes
   - [ ] No
   - [ ] Unknown

**N. Miscellaneous**

1. **Case Finding:**
   - [ ] Hospital Log
   - [ ] Laboratory List
   - [ ] Discharge Database
   - [ ] Reportable Disease
   - [ ] Other, specify: ________________

2. **Additional Comments:**

   ______________________________________________________