

# Endocrine, Nutritional, and Metabolic Diseases

E00 – E89

## TYPE I DIABETIC IN KETOACIDOSIS WITH OSTEOMYELITIS

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- GUIDELINES AND INSTRUCTIONS FOR  
CHAPTER 4 (E00 – E89)

# Endocrine, Nutritional and Metabolic Diseases (E00-E89)

- All neoplasms, whether functionally active or not, are classified in Chapter 2.
- Appropriate codes in this chapter (i.e. E05.8, E07.0, E16-E31, E34.-) may be used as additional codes to indicate either functional activity by neoplasms and ectopic endocrine tissue or hyperfunction and hypofunction of endocrine glands associated with neoplasms and other conditions classified elsewhere

# Endocrine, Nutritional and Metabolic Diseases (E00-E89)

## ■ Excludes1:

Transitory endocrine and metabolic disorders specific to newborn (P70-P74).

These codes cannot be reported together with other codes in this chapter since the two conditions cannot occur together.

# Endocrine, Nutritional and Metabolic Diseases (E00-E89)

This chapter contains the following blocks:

- E00-E07 Disorders of thyroid gland
- E08-E13 Diabetes mellitus
- E15-E16 Other disorders of glucose regulation and pancreatic internal secretion
- E20-E35 Disorders of other endocrine glands
- E36 Intraoperative complications of endocrine system

# Endocrine, Nutritional and Metabolic Diseases (E00-E89)

- E40-E46 Malnutrition
- E50-E64 Other nutritional deficiencies
- E65-E68 Overweight, obesity and other hyperalimentation
- E70-E88 Metabolic disorders
- E89 Postprocedural endocrine and metabolic complications and disorders, not elsewhere classified

# E10 Type 1 Diabetes Mellitus

## Includes:

- brittle diabetes (mellitus)
- diabetes (mellitus) due to autoimmune process
- diabetes (mellitus) due to immune mediated pancreatic islet beta-cell destruction
- idiopathic diabetes (mellitus)
- juvenile onset diabetes (mellitus)
- ketosis-prone diabetes (mellitus)

# E10 Type 1 Diabetes Mellitus

Excludes 1: This means the following codes cannot be reported together with other codes in this chapter since the two conditions cannot occur together.

- diabetes mellitus due to underlying condition (E08.-)
- drug or chemical induced diabetes mellitus (E09.-)
- gestational diabetes (O24.4-)
- hyperglycemia NOS (R73.9)
- neonatal diabetes mellitus (P70.2)



# E10 Type 1 Diabetes Mellitus

Excludes 1:

- postpancreatectomy diabetes mellitus (E13.-)
- postprocedural diabetes mellitus (E13.-)
- secondary diabetes mellitus NEC (E13.-)
- type 2 diabetes mellitus (E11.-)

# TYPE I DIABETIC IN KETOACIDOSIS WITH OSTEOMYELITIS

In this presentation, we will learn to code using the new ICD – 10 classification a patient who presents with:

1. Diabetes Type 1
3. Diabetic Ketoacidosis
4. Diabetic Nephropathy
5. Diabetic Neuropathy
6. Obesity
7. Ulceration of the right heel
8. Osteomyelitis of the right heel

# TYPE I DIABETIC IN KETOACIDOSIS WITH OSTEOMYELITIS

Consultation:

Referring physician: Dr. XXXXXX

Chief complaint:

- Mr. Jones is a 55 year old male who presents to the Emergency Room with an infected ulceration on the right heel which probes down to bone, a blood sugar of 500 and a temperature of 101.

# TYPE I DIABETIC IN KETOACIDOSIS WITH OSTEOMYELITIS

History of present illness:

- Patient states he has had the ulceration on his right heel for about one month and noticed a change in the wound over the past week. He started to develop a temperature over the past week. He started to develop a temperature over the last two days. His blood sugar has been elevated for about 5 days. When he went for his dialysis today, they referred him to the ER for further evaluation.

# TYPE I DIABETIC IN KETOACIDOSIS WITH OSTEOMYELITIS

- Right Heel:
- Ulceration, Wagner grade 3 probes to bone. Wound measures 4.0cm x 3.5cm x 2.0cm. There is necrotic, devitalized tissue in its base. There is a slight amount of cellulitis surrounding the right heel. There is a slight odor noted with serous drainage.
- Vital Signs – Stable; Temperature 101.5; Weight 310 lbs.
- Lab work-up:
- WBC – 16,000; Glucose – 535; BUN – 96; Creatinine – 7.5
- Urine – Positive for ketones

# TYPE I DIABETIC IN KETOACIDOSIS WITH OSTEOMYELITIS

## Radiological Studies:

- X-rays of right foot reveals osseous changes of the inferior aspect of the calcaneus, consistent with osteomyelitis. MRI of right foot recommended to confirm this diagnosis.

## Neurological Studies:

- Tendon reflexes: Patella 2/5, both right and left  
Achilles 1/5, both right and left
- Sensory: Decreased vibratory and light touch, both right and left

# TYPE I DIABETIC IN KETOACIDOSIS WITH OSTEOMYELITIS

## Assessment:

- 1. Trophic ulceration of the right heel
- 2. Osteomyelitis of the right heel.
- 3. Diabetes Type 1
- 4. Diabetic ketoacidosis
- 5. Diabetic neuropathy
- 6. Diabetic nephropathy
- 7. Obesity

# TYPE I DIABETIC IN KETOACIDOSIS WITH OSTEOMYELITIS

- Plan:
- 1. Admit with IV Unasyn 3.0gm q6h
- 2. Medical consult
- 3. Infectious Disease consult
- 4. Vascular consult
- 5. MRI of right foot
- 6. Once patient medically stable, excisional debridement of necrotic tissue and bone, to include a bone biopsy



## Coding This Encounter Using ICD - 9

- Ulceration of right heel – 707.14
- Osteomyelitis of right heel – 730.07
- Type 1 diabetes with neuropathy – 250.61
- Type 1 diabetes with ketoacidosis – 250.11
- Nephritis and nephropathy – 583.81
- Morbid obesity – 278.10

# Coding This Encounter Using ICD - 10

Code for diabetic foot ulcer:

- Go to Chapter 4 – Endocrine, Nutritional and Metabolic Diseases (E00 – E89)
- E10.0 - Type 1 diabetes mellitus
- 10.6 – Type 1 diabetes mellitus with other specific complications
- E10.62 – Type 1 diabetes mellitus with skin complications
- E10.621 – Type 1 diabetes mellitus with foot ulcer
  
- **ICD – 10 code for our diabetic foot ulcer – E10.621**

# Coding This Encounter Using ICD - 10

Code for diabetic ulceration on the right heel with bone involvement:

- Go to chapter 12 – Diseases of Skin and Subcutaneous tissue (L00 – L99)
- L97.0 – Non-pressure chronic ulcer of lower limb
- L97.4 – Non-pressure chronic ulcer of heel and midfoot
- L97.41 – Non-pressure chronic ulcer of right heel and midfoot
- L97.414 – Non-pressure chronic ulcer of right heel and midfoot with necrosis of bone
- ICD – 10 code for our right heel ulceration with bone involvement – L97.414

# Coding This Encounter Using ICD - 10

## Code for osteomyelitis of the right heel:

- Go to Chapter 13 – Diseases of the Musculoskeletal System and Connective Tissue (M00 – M99)
- M86.10 – Other acute osteomyelitis, unspecified site
- M86.17 – Other acute osteomyelitis, ankle and foot
- M86.171 – Other acute osteomyelitis, right ankle and foot
- ICD – 10 code for our osteomyelitis of right heel – M86.171

# Coding This Encounter Using ICD - 10

Coding for type 1 diabetic with ketoacidosis:

- Go to Chapter 4 – Endocrine, Nutritional and Metabolic Diseases (E00 – E89)
- E10.0 – Type 1 diabetes mellitus
- E10.1 – Type 1 diabetes mellitus with ketoacidosis
- E10.10 – Type 1 diabetes mellitus with ketoacidosis without coma
  
- ICD – 10 code for our type 1 diabetic with ketoacidosis – E10.10

# Coding This Encounter Using ICD - 10

Coding for type 1 diabetic with nephropathy:

- Go to Chapter 4 – Endocrine, Nutritional and Metabolic Diseases (E00 – E89)
- E10.0 – Type 1 diabetes mellitus
- E10.2 – Type 1 diabetes mellitus with kidney complications
- E10.21 – Type 1 diabetes mellitus with diabetic nephropathy
- **ICD – 10 code for our type1 diabetes with nephropathy – E10.21**

# Coding This Encounter Using ICD - 10

Coding for type 1 diabetic with polyneuropathy:

- Go to chapter 4 – Endocrine, nutritional and metabolic diseases (E00 – E89)
- E10.4 - Type 1 diabetes mellitus with neurological complications
- E10.42 - Type 1 diabetes mellitus with diabetic polyneuropathy

Type 1 diabetes mellitus with diabetic neuropathy

ICD – 10 code for our type 1 diabetic with polyneuropathy: E10.42

# Coding This Encounter Using ICD - 10

- Coding for obesity:
- Go to Chapter 4 – Endocrine, Nutritional and Metabolic Diseases (E00 – E89)
- E66.0 - Obesity due to excess calories
- E66.01 – Morbid obesity due to excess calories
  
- ICD – 10 code for our morbid obesity – E66.01



# Comparing ICD-9 And ICD-10

ICD - 9	ICD - 10
707.14 – Ulceration of heel	E10.621 – Diabetic foot ulcer L97.414 – Ulceration of right heel and midfoot with bone necrosis
730.07 – Osteomyelitis of foot and ankle	M86.171 - Acute osteomyelitis of right ankle and foot
250.61 – Type 1 diabetes with neuropathy	E10.42 – Type 1 diabetes with polyneuropathy
250.11 – Type 1 diabetes with ketoacidosis	E10.10 – Type 1 diabetes with ketoacidosis
583.81 – Nephritis and nephropathy	E10.21 – Type 1 diabetes with nephropathy
278.10 – Morbid obesity	E66.01 – Morbid obesity

# Coding This Encounter Using ICD - 10

The codes for this initial hospital encounter of a type 1 diabetic in ketoacidosis with osteomyelitis and morbidly obese would be:

CPT: 99222 – Initial hospital encounter

ICD – 10: E10.621 – Diabetic foot ulcer

L97.414 – Ulceration of right heel with bone necrosis

M86.171 – Acute osteomyelitis of right foot

E10.42 – Type 1 diabetes with polyneuropathy

E10.10 – Type 1 diabetes with ketoacidosis

E10.21 – Type 1 diabetes with nephropathy

E66.01 – Morbid obesity

- Questions?