

Sample ICD-10-CM Proposal Submission Content

General Information

- Proposal name: Post-bariatric hypoglycemia
- Submitter: name and organization redacted
- Primary point of contact name and email address: redacted
- Secondary point of contact name and email address: redacted

Clinical Characteristics

Post-bariatric hypoglycemia (PBH) is a chronic condition that develops in some individuals who have undergone bariatric surgery.¹⁻⁶ PBH is believed to be caused by changes in hormonal and glycemic patterns, including an excessive insulin and glucagon-like peptide-1 (GLP-1) response, as a result of altered nutrient transit post-surgery.²⁻⁵ Individuals with PBH experience recurrent, debilitating hypoglycemia, the clinical relevance of which can be significant as patient safety, nutrition, cognition, and quality of life can be compromised.⁷⁻⁹ Recurrent hypoglycemia can lead to defective counter-regulatory responses, reduced hypoglycemia awareness, impaired cognitive function, cardiac arrhythmia, and even death.^{6,10} There are many potential causes of non-diabetic hypoglycemia with different diagnostic and treatment strategies including congenital hyperinsulinism, severe sepsis, insulin autoimmune syndrome, insulinoma, and anorexia nervosa.^{11,12}

Despite the advent of GLP-1 receptor agonists for obesity management, bariatric surgery is expected to remain a mainstay of treatment given the magnitude and durability of the metabolic and weight-loss effect in addition to secondary health economics.¹⁵⁻²² Up to 75% of individuals will experience hypoglycemia after bariatric surgery.¹³ However, only a minority of those individuals will have recurrent hypoglycemic events classified as PBH.¹⁴ PBH prevalence rates are not currently known but there is evidence PBH is underreported² and prevalence rates may rise with increasing PBH awareness and more standardized diagnostic testing.²³ A specific PBH code would facilitate the collection of data in this population, accelerating research into risk factors, burden of the condition, and therapeutic interventions. There are key questions about PBH that must be better answered to improve patient care and quality of life for those affected by the condition.^{6,7,9,18,24} To name just a few, a unique ICD-10-CM code will help answer these questions:

- Greater understanding of risk factors can ensure surgeons are better able to assess and convey to patients the risk-benefit balance of bariatric surgery with the potential to reduce PBH incidence^{2,7}
- Better characterization of the burden of the condition can help ensure that key stakeholders understand the impact PBH has on both the individual and societal levels and allow appropriate allocation of resources to address unmet needs⁹
- Facilitation of retrospective studies and research into mechanisms by which to expedite diagnosis in a cost-effective manner can help optimize clinical care⁶

- Facilitation of participant recruitment for clinical trials and patient registries can enable research into new targets for treatment ²⁵

Patient Encounter Characteristics

Clinical diagnosis of this chronic condition is based on recurrent hypoglycemic events that are determined to be due to having had prior bariatric surgery. The clinical diagnosis by a provider, in the assessment and/or plan for example, will identify the hypoglycemia, often described as chronic or recurrent, with the etiology of post-bariatric surgery.

Statistical or Public Health Characteristics

A variety of ICD-10-CM codes may be used currently (alone or in combination):

- E16.2 Hypoglycemia, unspecified
- E16.1 Other hypoglycemia
- K91.1 Postgastric surgery syndromes (inclusion term: dumping syndrome)
- K91.2 Postsurgical malabsorption, NEC
- K91.89 Other postprocedural complications and disorders of digestive system

These current coding options do not distinguish PBH from other types of hypoglycemia, resulting in a loss of essential clinical information that could inform and improve patient care in this unique group. Accurate identification of individuals with PBH is also not possible using a combination of existing codes, such as E16.1, Other hypoglycemia, with Z98.84, Bariatric surgery status, since only a minority of post-bariatric surgery individuals will have recurrent hypoglycemic events classified as PBH.¹⁴ Furthermore, the post-gastric and postsurgical codes in category K91 are not appropriate for PBH which is an endocrine and metabolic condition not a surgical complication.

We recommend creating a new code to distinguish PBH from other types of hypoglycemia, with suggested placement as follows with other disorders of pancreatic internal secretion:

E16 Other disorders of pancreatic internal section	
New subcategory	E16.1 Other hypoglycemia
New code	E16.10 Post-bariatric hypoglycemia
Add	late dumping syndrome
New code	E16.19 Other hypoglycemia

Technical Characteristics

We are not aware of another healthcare standard that includes PBH or any related data mapping concerns.

Like ICD-10-CM, the WHO [ICD-11](#) code system includes a code for dumping syndrome (DE11) classified as a postprocedural disorder of digestive system, analogous to ICD-10-CM code K91.1

(post-bariatric surgery syndromes). Late dumping syndrome is an antiquated term that has been used in the past to refer to PBH. However, PBH is not a postsurgical complication. It is a chronic endocrine and metabolic condition. Prior bariatric surgery is the etiology, but the onset of PBH may be delayed by years and it is a chronic, life-long condition. As such, it should be classified as an endocrine and metabolic condition, not a postprocedural complication.

Detailed Proposal

Post-bariatric hypoglycemia (PBH) is a chronic condition that develops in some individuals who have undergone bariatric surgery.¹⁻⁶ PBH is believed to be caused by changes in hormonal and glycemic patterns, including an excessive insulin and glucagon-like peptide-1 (GLP-1) response, as a result of altered nutrient transit post-surgery.²⁻⁵ Individuals with PBH experience recurrent, debilitating hypoglycemia, the clinical relevance of which can be significant as patient safety, nutrition, cognition, and quality of life can be compromised.⁷⁻⁹ Recurrent hypoglycemia can lead to defective counter-regulatory responses, reduced hypoglycemia awareness, impaired cognitive function, cardiac arrhythmia, and even death.^{6,10}

Current coding options do not distinguish PBH from other types of hypoglycemia, resulting in a loss of essential clinical information that could inform and improve patient care in this unique group. There are many potential causes of non-diabetic hypoglycemia with different diagnostic and treatment strategies including congenital hyperinsulinism, severe sepsis, insulin autoimmune syndrome, insulinoma, and anorexia nervosa.^{11,12} Accurate identification of individuals with PBH is also not possible using existing codes (i.e., E16.1 Other Hypoglycemia and Z98.84 Bariatric Surgery Status). Up to 75% of individuals will experience hypoglycemia after bariatric surgery.¹³ However, only a minority of those individuals will have recurrent hypoglycemic events classified as PBH.¹⁴ The lack of a PBH-specific code limits the ability to track and analyze PBH's unique clinical characteristics and related healthcare utilization. As a result, important data related to prevalence, risk factors, burden, and treatment outcomes remain unavailable, and patient care is impacted.

Despite the advent of GLP-1 receptor agonists for obesity management, bariatric surgery is expected to remain a mainstay of treatment given the magnitude and durability of the metabolic and weight-loss effect in addition to secondary health economics.¹⁵⁻²² PBH prevalence rates are, therefore, not expected to decrease over time and may in fact rise with increasing PBH awareness and more standardized diagnostic testing.²³

Name Redacted, MD, is proposing a new post bariatric hypoglycemia code to facilitate the collection of data in this population, accelerating research into risk factors, burden of the condition, and therapeutic interventions.

References

1. Sheehan A, Patti ME. Hypoglycemia after upper gastrointestinal surgery: Clinical approach to assessment, diagnosis, and treatment. *Diabetes Metab Syndr Obes.* 2020;13:4469-4482.
2. Athavale A, Ganipiseti VM. Postbariatric surgery hypoglycemia. [Updated 2023 Aug 15]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK592417/>.
3. Hemmingsson JU, et al. Postbariatric hypoglycemia in symptomatic versus asymptomatic patients: Proposals for clinical assessments. *BMJ Open Diabetes Res Care.* 2022;10(5):e002572.

4. Craig CM, et al. Efficacy and pharmacokinetics of subcutaneous exendin (9-39) in patients with post-bariatric hypoglycaemia. *Diabetes Obes Metab*. 2018;20(2):352-361.
5. Patti ME, Goldfine A. Hypoglycemia after gastric bypass: the dark side of GLP-1. *Gastroenterology*. 2014;146(3):605-608.
6. Hazlehurst J, et al. Society for Endocrinology guidelines for the diagnosis and management of post-bariatric hypoglycaemia. *Endocr Connect*. 2024;13(5):e230285.
7. Salehi M, et al. Hypoglycemia after gastric bypass surgery: current concepts and controversies. *J Clin Endocrinol Metab*. 2018;103(8):2815-2826.
8. Emous M, et al. The short- to mid-term symptom prevalence of dumping syndrome after primary gastric-bypass surgery and its impact on health-related quality of life. *Surg Obes Relat Dis*. 2017;13(9):1489-1500.
9. Yu Y, et al. Adverse health outcomes associated with hypoglycemia following bariatric surgery. *Metab Syndr Relat Disord*. 2025; Epub ahead of print. Doi:10.1089/met.2025.0010.
10. McCrimmon RJ. Consequences of recurrent hypoglycaemia on brain function in diabetes. *Diabetologia*. 2021;64(5):971-977
11. Ahmed FW, et al. Non-diabetic hypoglycemia. [Updated 2023 July 17]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK573079/>
12. Rayas MS, Salehi M. Non-diabetic hypoglycemia. [Updated 2024 Jan 27]. In: Feingold KR, Ahmed SF, Anawalt B, et al., editors. Endotext [Internet]. South Dartmouth (MA): MDText.com, Inc.; 2000-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK355894/>
13. Kefurt RM et al. Hypoglycemia after Roux-En-Y gastric bypass: detection rates of continuous glucose monitoring (CGM) versus mixed meal test. *Surg Obes Relat Dis*. 2015;11(3):564-9.
14. Craig CM and McLaughlin TL. Prevalence of postbariatric hypoglycemia in the United States. *Poster presented at: Endocrine Society Annual Meeting; San Francisco, California; July 12-15, 2025*. ENDO 2025 website. Accessed May 9, 2025.
15. Walter E, et al. Impact of metabolic surgery on cost and long-term health outcome: a cost-effectiveness approach. *Surg Obes Relat Dis*. 2022;18(2):260-270.
16. Jenkins ME, et al. Effectiveness and durability of common weight loss methods. Poster presented at: ASMBS Annual Meeting; San Diego, California; June 9-13, 2024. https://pharmaceutical-journal.com/wp-content/uploads/2024/06/Obesity-management-ASMBS-Poster-2024_D3_24052389-Read-Only.pdf.
17. Dicker D, et al. Bariatric Metabolic Surgery vs Glucagon-Like Peptide-1 Receptor Agonists and Mortality. *JAMA Netw Open*. 2024;7(6):e2415392
18. Sanchez J, et al. Comparative cost-effectiveness analysis of bariatric surgery and GLP-1 receptor agonists for the management of obesity. *J Am Coll Surg*. 2024;239(5):S23
19. Chang SH, et al. The effectiveness and risks of bariatric surgery: an updated systematic review and meta-analysis, 2003-2012. *JAMA Surg*. 2014;149(3):275-287.
20. Wiggins T, et al. Association of bariatric surgery with all-cause mortality and incidence of obesity-related disease at a population level: A systematic review and meta-analysis. *PLoS Med*. 2020;17(7):e1003206.
21. Adams TD, et al. Long-term mortality after gastric bypass surgery. *N Engl J Med*. 2007;357(8):753-761.
22. Carlsson LMS, et al. Life Expectancy after Bariatric Surgery in the Swedish Obese Subjects Study. *N Engl J Med*. 2020;383(16):1535-1543.
23. Rossini G, et al. Postbariatric surgery hypoglycemia: Nutritional, pharmacological and surgical perspectives. *Diabetes Metab Res Rev*. 2024;40(2):e3750.
24. O'Donnell, K and Kirby, JL. Hyperinsulinemic hypoglycemia after gastric bypass surger. *Pract Gastroenterol*. 2016;XL(6):22-27.
25. Khine H, et al. Targeted electronic health record-based recruitment strategy. *Contemp Clin Trials Commun*. 2023;37:101250.