

**HUBUNGAN TINGKAT PENGETAHUAN *BEYOND USE DATE*  
DENGAN PERILAKU PENGGUNAAN DAN PENYIMPANAN INSULIN  
PEN PADA PASIEN DIABETES MELITUS DI RSD K.R.M.T  
WONGSONEGORO**

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**ABSTRAK**

**Latar Belakang:** *Beyond Use Date* (BUD) merupakan batas waktu penggunaan obat setelah dibuka yang dipengaruhi oleh suhu penyimpanan, jenis dan cara penyiapan obat. Penggunaan obat yang melewati BUD berisiko mengalami penurunan efektivitas.

**Tujuan:** Mengetahui tingkat pengetahuan BUD, perilaku penggunaan dan penyimpanan insulin pen, serta hubungan antara tingkat pengetahuan BUD dengan perilaku penggunaan dan penyimpanan insulin pen pada pasien Diabetes Melitus (DM).

**Metode:** Penelitian observasional analitik dengan desain *cross sectional*. Pengambilan sampel dilakukan dengan teknik *purposive sampling*. Analisis univariat dengan tabel distribusi frekuensi dan analisis bivariat menggunakan uji *chi-square pearson* atau *Fischer-Freeman-Halton Exact test*.

**Hasil:** Responden memiliki persentase tingkat pengetahuan BUD kategori kurang (41,18%), cukup (36,47%), dan baik (22,35%). Perilaku penggunaan dan penyimpanan insulin pen kategori kurang (23,57%), cukup (38,82%), dan baik (37,65%). Analisis statistik menunjukkan bahwa tingkat pengetahuan BUD berhubungan dengan perilaku penggunaan dan penyimpanan insulin pen (nilai P 0,031).

**Kesimpulan:** Tingkat pengetahuan BUD mayoritas responden tergolong rendah, perilaku sebagian besar responden tergolong cukup, serta tingkat pengetahuan berhubungan dengan perilaku.

**Kata kunci:** *Beyond use date*, Insulin pen, Pengetahuan, Penggunaan, Penyimpanan

# **RELATIONSHIP BETWEEN BEYOND USE DATE KNOWLAGE AND INSULIN PEN USE AND STORAGE BEHAVIOR AMONG PATIENTS WITH DIABETES MELLITUS AT RSD K.R.M.T WONGSONEGORO**

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## **ABSTRACT**

**Background:** Beyond Use Date (BUD) is the expiration date for a medication after it has been opened, which is influenced by storage temperature, type, and preparation method. Medication use beyond the BUD carries the risk of decreased effectiveness.

**Aim:** To determine the level of knowledge regarding BUD, insulin pen use and storage behavior, and the relationship between BUD knowledge and insulin pen use and storage behavior in patients with diabetes mellitus (DM).

**Methods:** This research employed an observational, analytical design with a cross-sectional approach. Sampling was conducted using purposive sampling. Univariate analysis was performed using frequency distribution tables, and bivariate analysis was conducted using the Pearson chi-square test or the Fisher-Freeman-Halton Exact test.

**Result:** Respondents' knowledge of BUD was categorized as poor (41.18%), average (36.47%), and good (22.35%). Behavior regarding insulin pen use and storage was categorized as poor (23.57%), average (38.82%), and good (37.65%). Statistical analysis showed that BUD knowledge was associated with insulin pen use and storage behavior (P value 0,031).

**Conclusion:** The level of knowledge of BUD for most respondents was categorized as poor, the behavior of most respondents was categorized average, and the level of knowledge was related to behavior.

**Keyword:** Beyond use date, Insulin pen, Knowledge, Use, Storage