



# “Early Detection of High-Risk Diabetic Foot: Utility of Inlow’s 60-Second Screening in Type 2 Diabetes”

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## ABSTRACT

**Introduction:** Diabetic foot is a serious complication of diabetes mellitus, often resulting from neuropathy and peripheral arterial disease (PAD). Early identification of high-risk feet is critical to preventing diabetic foot ulcers (DFUs), which significantly impact morbidity, mortality, and quality of life. This study aimed to evaluate the prevalence and risk factors of high-risk foot using Inlow’s 60-second diabetic foot screening tool.

**Methods:** A cross-sectional observational study was conducted at Maulana Azad Medical College and Lok Nayak Hospital, New Delhi, over one year. A total of 100 type 2 diabetic patients aged  $\geq 18$  years with diabetes duration  $> 5$  years were included. Patients with existing foot ulcers or critical illness were excluded. Inlow’s screening tool assessed foot risk, and clinical/laboratory data were collected. Data analysis was performed using SPSS v25.

**Results:** The mean age was  $54.16 \pm 8.86$  years; 98% had  $HbA1c \geq 7\%$ . Inlow’s tool classified 77% as very low risk, 21% as low risk, and 2% as moderate risk. Significant associations were found with older age ( $p = 0.032$ ), longer diabetes duration ( $p = 0.001$ ), low income ( $p = 0.040$ ), CAD ( $p < 0.001$ ), and poor glycemic control ( $p < 0.001$ ).

**Conclusion:** Inlow’s tool is effective for early diabetic foot risk detection. Older age, poor glycemic control, comorbidities, and longer diabetes duration increase risk, highlighting the need for regular foot screening and integrated care.

**Keywords:** diabetic foot, type 2 diabetes, Inlow’s 60-second screening tool, high-risk foot.

and financial burdens and increase mortality rates to 43–50%.<sup>3</sup> Amputation is 10–30 times more likely in diabetic patients, with a 5-year post-amputation mortality rate reaching up to 80%.<sup>3</sup>

Neuropathy risk rises with poor glycemic control and disease duration. Studies show that maintaining A1C levels above 7% for three years raises neuropathy risk<sup>4</sup>. Neuropathy prevalence increases from 7.5% at diagnosis to 50% after 25 years<sup>5</sup>. PAD prevalence also increases with age and diabetes duration, from 3.2% in patients under 50 to 33% in those over 80. Despite this, foot care in India is often neglected due to social and economic factors<sup>6</sup>.

For screening high-risk diabetic foot, tools such as the Michigan Neuropathy Screening Instrument (MNSI), Utah Early Neuropathy Scale (UENS), and Inlow’s 60-second Diabetic Foot Screen are commonly used. This study utilizes Inlow’s tool, originally developed by Dr. Shane Inlow (Canada), a clinical expert in diabetic foot disease. The updated version was introduced at the 2022 Diabetes Canada and Orthotics Prosthetics Canada national conferences<sup>7</sup>. This tool is widely recognized for its simplicity, speed, and effectiveness in identifying high-risk feet and guiding care plans. The assessment includes evaluating skin and nail conditions, testing for loss of protective sensation using a monofilament, checking for signs of peripheral arterial disease (PAD), and identifying foot deformities. Patients also self-report comorbidities such as retinopathy, nephropathy, and smoking. Based on findings, risk levels are classified into Very Low (0), Low (1), Moderate (2), High (3), and Urgent. Its validity and reliability have been confirmed in multiple studies<sup>8</sup>.

This study aimed to assess the prevalence of high-risk foot in patients with diabetes and identify the key risk factors contributing to its development.

## II. MATERIALS AND METHODS

This study was a cross-sectional observational study conducted at Maulana Azad Medical College and Associated Hospital Lok Nayak Hospital in the Department of Medicine, New Delhi, for a period of 1 year.

## I. INTRODUCTION

**Diabetic foot**<sup>1</sup> is characterized by infection, ulceration, and/or destruction of deep tissues, often accompanied by neurological abnormalities and varying degrees of peripheral vascular disease in the lower limb. A **high-risk foot**<sup>1</sup> is defined by the presence of characteristics that indicate a high probability of developing a foot ulcer. Persistent high blood sugar levels can damage nerves and small blood vessels. In India, neuropathic lesions account for 80% of ulcers, and neuroischemic accounts for the remaining 20%.<sup>2</sup> DFUs lead to significant emotional, physical,



All patients with more than 18 years of age and type 2 diabetes mellitus with a duration of diabetes of more than 5 years were included in this study. All patients already diagnosed with diabetic foot ulcers and critically ill patients were excluded. 100 patients were randomly picked up from the diabetic/medicine outpatient department. All patients were administered Inlow's 60-second screening tool by the investigator in which all the possible factors for high-risk foot in diabetes were included. It took 5 minutes to use this screen tool. The following laboratory investigations were sent for the patients:

- Complete Blood count
- HbA1c
- Fasting blood glucose
- Postprandial blood glucose
- Kidney Function Test
- Lipid Profile

Before starting the main study, the questionnaire was validated in a pilot study in 10 patients.

#### DATA ENTRY AND STATISTICAL ANALYSIS:

The collected data were transformed into variables, coded, and entered in Microsoft Excel. Data were analyzed and statistically evaluated using the SPSS-PC-25 version. Categorical data was expressed in frequency and proportions. Continuous data was reported as mean and standard deviation for normal data and median and interquartile range for non-normal data. The chi-square test will be applied to assess the difference in proportions and association between categorical variables. A 'p' value < 0.05 was considered as statistically significant.

### III. RESULTS

The mean age of the study population is 54.16 years ± 8.86 years. Baseline characteristics of the study population are shown in Table 1. The mean duration of the DM was 8.94 years with a minimum duration of 5 years and a maximum duration of 20 years. Most patients had duration of diabetes in the range of 5-10 years (80%) followed by 11-15 years (14%) and 16-20 years (6%). 90% of the study population had one or more comorbidities. 10% did not have any comorbidity. The most common comorbidity was hypertension (58%), followed by dyslipidemia (48%), smoking (41%), coronary artery disease (29%) and abnormal alcohol intake (19%). The mean HbA1c level of the study subjects was 8.978 with a minimum of 6.2 and a maximum of 14. Only 2% of the patients had Hb1Ac <7% (good glycemic control), whereas 98% of the patients had Hb1Ac level 7% and above (poor glycemic control). 25% of the study patients had FBG in the range of 80-130 mg/dl and 75% of the patients had >130 mg/dl. 34% of the study subjects had PPBG level <180mg/dl and 66% had >= 180mg/dl. 72% of the study subjects were on only OHAs, 11% were only on insulin and 17% were on both OHAs and insulin.

Most of the study subjects were of 12<sup>th</sup> grade (26%), followed by graduate (21%), illiterate (19%), 10<sup>th</sup> grade (13%), 8<sup>th</sup> grade (9%), post-graduate (7%) and 5<sup>th</sup> grade (5%). Most of the study subjects had monthly incomes in the range of 20,000-40,000 rupees (43%), followed by <20,000 rupees (34%) and >40,000 rupees (23%).

The most common symptom perceived by the study subjects was numbness (33%), followed by burning (22%), pain (22%), tingling (15%), and insects crawling over the skin (1%). The mean ABI of the study subjects was 1.0309 with a minimum value of 0.73 and a maximum value of 1.45. The peripheral arterial disease was calculated using the ABI of the study subjects, 9% had a risk for PAD and 91% had no risk.

Table 1- Baseline characteristics of the study population

Characteristics	Groups	Percentage (%)
Age groups	</=40	7%
	41-50	29%
	51-60	34%
	>/=61	30%
Sex	Male	48%
	Female	52%
Educational Qualifications	Illiterate	19%
	5 <sup>th</sup> Pass	5%
	8 <sup>th</sup> Pass	9%
	10 <sup>th</sup> Pass	13%



	12 <sup>th</sup> Pass	26%
	Graduate	21%
	Postgraduate	7%
Monthly Income (Rupees)	<20,000	34%
	20,000-40,000	43%
	>40,000	23%
Duration of diabetes	5-10	80%
	11-15	14%
	16-20	6%
Comorbidities	Hypertension	58%
	Coronary artery disease	29%
	Dyslipidemia	48%
	Smoking	41%
	Abnormal alcohol intake	19%
Hba1c	<7	2%
	7 and above	98%
FBG (mg/dl)	80-130	25%
	>130	75%
PPBG (mg/dl)	<180	34%
	>/=180	66%
Treatment	OHAs	72%
	Insulin	11%
	OHAs + Insulin	17%

In low's 60-sec screening test was applied to the study subjects for the four parameters (skin and nail changes, loss of protective sensation,

peripheral arterial disease, and bony deformity). It was done for both right and left foot.

**Table 2: Inlow's 60-sec screening test of the study subjects (n-100)**

Assessment parameters	Components	Left foot, (n)	Right foot, (n)
1.skin and nail changes			
Skin	Intact and healthy	76	75
	Dry with fungus or light callus	22	22
	Heavy callus buildup	2	1
	Open ulceration or history of previous ulcer	0	0
Nails	Well-groomed and appropriate length	84	84
	Unkempt, and ragged	15	15
	Thick, damaged, or infected	1	1
2. peripheral neuropathy/loss of protective sensation			
Foot Sensation- Monofilament testing	No: Loss of protective sensation was not detected (sensation was present at all sites)	46	45
	Yes: Loss of protective sensation detected (sensation was missing at one or more sites)	54	55
Foot Sensation- do they feel numb?		33	33



ever:	Tingle?	15	15
	Burn?	22	22
	Feel like insects crawling on them?	1	1
3.peripheral arterial disease			
Dependent rubor	Yes	2	2
	No	98	98
Cool foot	Yes	3	4
	No	97	96
Pedal Pulses	Present	78	78
	Absent	22	22
4. Bony Deformity (and Footwear)			
Deformity	No deformity	100	100
	Deformity	0	0
	Amputation	0	0
	Acute charcot	0	0
Range of motion	Full range of hallux	97	97
	Limited range of motion of hallux	3	3
	Rigid hallux	0	0
Foot wear	Appropriate	68	68
	Inappropriate	32	32
	Causing trauma	0	0

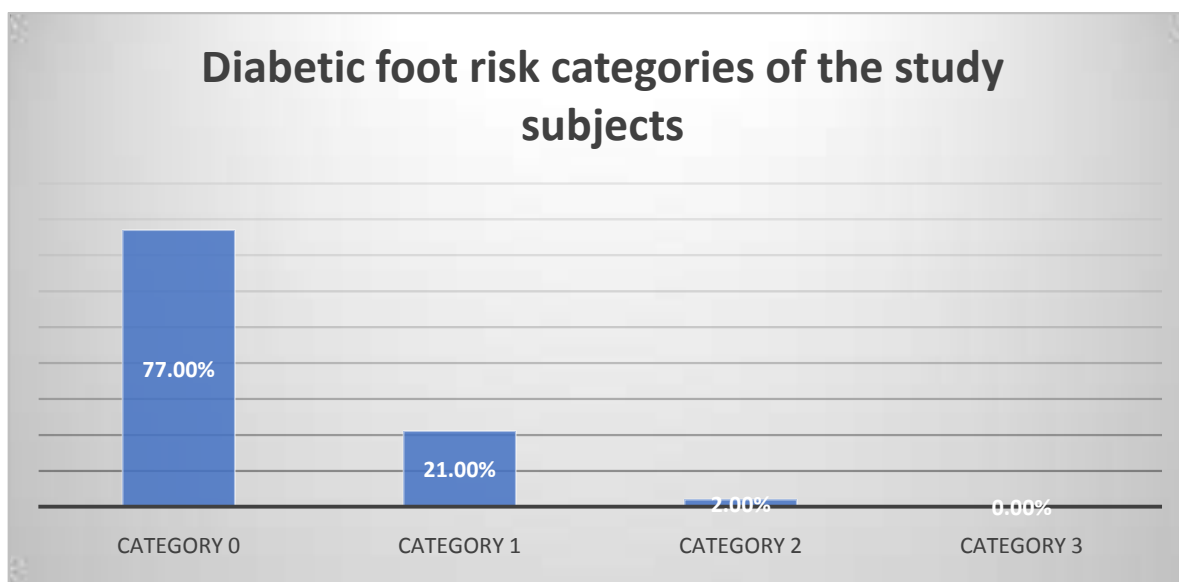


Figure-1

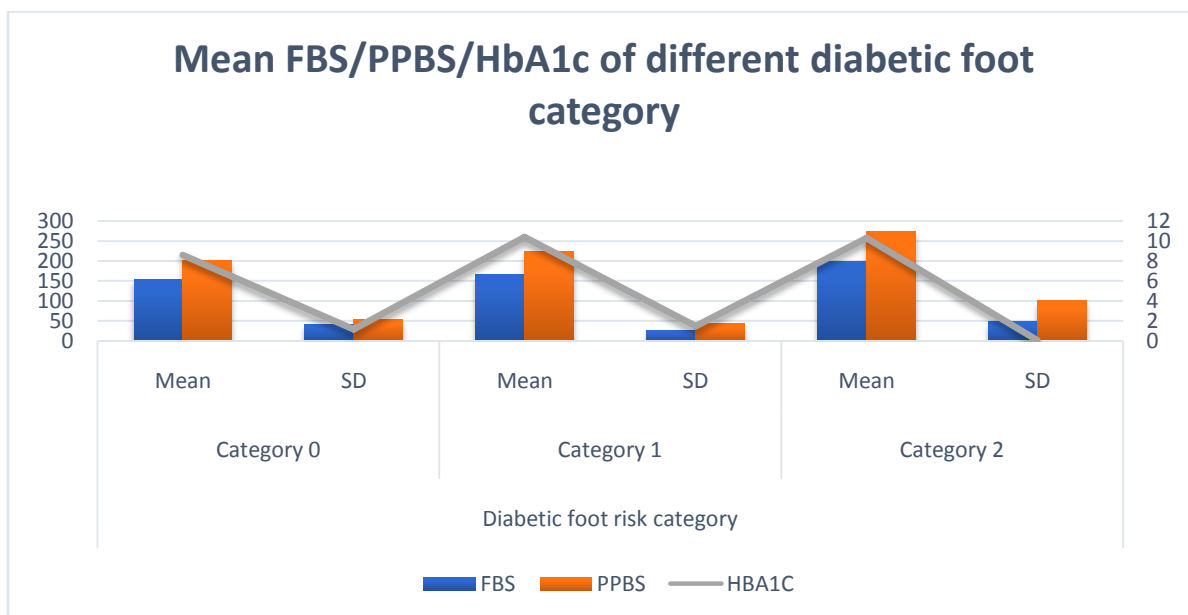


Figure -2

77% of the study subjects were in Category 0, followed by category 1 (21%), category 2(2%) and category 3 (0%) (Figure 1).

Diabetic risk categories across each variable are shown in Tables 2 and 3. Category 2 has 100% of study participants belonging to the age group >60 years, age was found to be a significant factor for diabetic foot risk with a p-value of 0.032

with higher age increasing the risk of DFU. Category 2 has 100% female participants, but this difference was not statistically significant (p-value =0.159). Category 2 has 100% of study participants who had monthly income <20,000. Low income was significantly associated with a higher risk of diabetic foot ulcers with a p-value of 0.040.

Variables		Category 0		Category 1		Category 2		Chisquare test P value
		N	%	N	%	N	%	
Age group (figure 2)	<=40	6	85.7%	1	14.3%	0	0.0%	Chisquare = 13.755, df=6, p=0.032
	40-50	27	93.1%	2	6.9%	0	0.0%	
	50-60	27	79.4%	7	20.6%	0	0.0%	
	>60	17	56.7%	11	36.7%	2	6.7%	
Gender	Male	35	72.9%	13	27.1%	0	0.0%	Chisquare = 3.673, df=2, p=0.159
	Female	42	80.8%	8	15.4%	2	3.8%	
Income	<20,000	25	73.5%	7	20.6%	2	5.9%	Chisquare = 10.052, df=4, p=0.040
	20,000 - 40000	30	69.8%	13	30.2%	0	0.0%	
	>40,000	22	95.7%	1	4.3%	0	0.0%	
Educational qualifications	Illiterate	13	68.4%	5	26.3%	1	5.3%	Chisquare = 19.153, df=12, p=0.085
	5th PASS	3	60.0%	1	20.0%	1	20.0%	
	8th PASS	9	100.0%	0	0.0%	0	0.0%	
	10th PASS	10	76.9%	3	23.1%	0	0.0%	
	12th PASS	17	65.4%	9	34.6%	0	0.0%	
	Graduate	18	85.7%	3	14.3%	0	0.0%	
Duration of DM (figure 3)	Postgraduate	7	100.0%	0	0.0%	0	0.0%	Chisquare = 18.655, df=4,
	5-10	67	83.8%	12	15.0%	1	1.3%	
	10-15	9	64.3%	4	28.6%	1	7.1%	



	15-20	1	16.7%	5	83.3%	0	0.0%	p=0.001
Hypertension	Yes	40	69.0%	16	27.6%	2	3.4%	Chisquare = 5.459, df=2, p=0.065
	No	37	88.1%	5	11.9%	0	0.0%	
Coronary artery disease	Yes	13	44.8%	14	48.3%	2	6.9%	Chisquare = 24.857, df=2, p<0.001
	No	64	90.1%	7	9.9%	0	0.0%	
Dyslipidemia	Yes	39	81.3%	9	18.8%	0	0.0%	Chisquare = 2.285, df=2, p=0.319
	No	38	73.1%	12	23.1%	2	3.8%	
Alcohol	Yes	17	89.5%	2	10.5%	0	0.0%	Chisquare = 2.168, df=2, p=0.338
	No	60	74.1%	19	23.5%	2	2.5%	
Smoking	Yes	29	70.7%	11	26.8%	1	2.4%	Chisquare = 1.546, df=2, p=0.462
	No	48	81.4%	10	16.9%	1	1.7%	
OHAs	Yes	57	80.3%	13	18.3%	1	1.4%	Chisquare = 1.614, df=2, p=0.446
	No	20	69.0%	8	27.6%	1	3.4%	
Insulin	Yes	6	54.5%	5	45.5%	0	0.0%	Chisquare = 4.576, df=2, p=0.101
	No	71	79.8%	16	18.0%	2	2.2%	
OHAs + Insulin	Yes	13	76.5%	3	17.6%	1	5.9%	Chisquare = 1.654, df=2, p=0.437
	No	64	77.1%	18	21.7%	1	1.2%	

**Table-3 Diabetic risk categories across each variable with chi square test.**

Variables	Diabetic foot risk category						ANOVA test P value
	Category 0		Category 1		Category 2		
	Mean	SD	Mean	SD	Mean	SD	
FBS	154.2	41.0	165.4	26.5	199.0	48.1	F=1.875, df=2, p=0.159
PPBS	201.8	54.4	225.2	43.7	273.5	101.1	F=3.141, df=2, p=0.048
HbA1c	8.6	1.2	10.4	1.5	10.3	.1	F=17.422, df=2, p<0.001

**Table 4- Diabetic foot risk categories across each group with ANOVA test**

83.3% of the group with diabetes duration of 15-20 years belongs to Category 1 while 83.8% of the group with diabetes 5-10 years belongs to Category 0. This difference was statistically significant with a high risk of DFU with a p-value of 0.001. Category 2 has 100% of study participants with coronary artery disease, this was found to be significantly associated with a higher risk of diabetic foot ulcer (p-value<0.001). Category 2 has 100% of study participants with hypertension, but this was not found to be significantly associated with high-risk foot (p-value-0.065) Educational qualifications, alcohol, smoking, and treatment therapy were not associated significantly with the risk of high-risk foot.

Category 2 has high mean FBS (199mg/dl), PPBS (273.5 mg/dl), and HbA1c (10.3%), this was found to be statistically

significant (p-value – 0.048 for PPBS and p-value <0.001 for HbA1c) [ figure 2]

#### IV. DISCUSSION

This cross-sectional observational study was conducted at Lok Nayak Hospital after obtaining approval from the institutional ethics committee. The study included 100 participants aged between 36 and 70 years who attended the medicine and diabetic outpatient clinics. Glycemic control among participants was notably poor, with 98% having HbA1c levels ≥7%, 75% fasting blood glucose levels >130 mg/dL, and 66% postprandial blood glucose levels ≥180 mg/dL. Only 2% of participants achieved an HbA1c <7%, while fasting and postprandial blood glucose levels within target ranges were observed in 25% and 34% of participants, respectively. Similar trends in



poor glycemic control have been observed in studies like Al-Mohaithef et al.<sup>9</sup> (53%). Most participants (72%) were prescribed oral hypoglycemic drugs alone, while 17% were on a combination of oral hypoglycemic drugs and insulin therapy. This distribution is consistent with Akila et al.<sup>10</sup> (55.1% on oral hypoglycemic drugs) but contrasts with Al-Mohaithef et al.<sup>9</sup>, where 64% were on insulin therapy.

Neuropathic symptoms were prevalent, with 33% of participants reporting numbness, 24% reporting pain, and 22% reporting burning sensations in the lower limbs. These findings align with Vibha et al.<sup>11</sup>, where 51.5% reported numbness and 38.7% reported burning sensations. Peripheral arterial disease (PAD) was identified in 8% of participants based on the Ankle-Brachial Index and Inlow's 60-second screening test. This is slightly lower than the 10.8% prevalence reported by Vibha et al.<sup>11</sup>

Statistical analysis revealed significant associations between several factors and high-risk foot conditions. Older age ( $p = 0.009$ ) and longer diabetes duration ( $p < 0.001$ ) were strongly correlated with increased risk. This is consistent with findings by Vibha et al.<sup>11</sup>, who reported that individuals with diabetes for over ten years were 3.7 times more likely to develop foot ulcers compared to those with a duration of fewer than five years. Participants with CAD were at significantly higher risk for high-risk foot conditions ( $p < 0.001$ ), consistent with Vibha et al.<sup>11</sup> and Amini et al.<sup>12</sup>, who emphasized the role of compromised limb perfusion due to vascular insufficiency. Poor glycemic control, reflected in high postprandial blood sugar levels ( $p = 0.048$ ) and elevated HbA1c levels ( $p < 0.001$ ), was also significantly associated with high-risk foot conditions, supporting the findings of Al-Mohaithef et al.<sup>9</sup>

Lower income levels showed a significant correlation with high-risk foot conditions ( $p = 0.040$ ), likely reflecting challenges in access to healthcare and self-care practices among economically disadvantaged participants. This aligns with Lael-Monfared et al.<sup>13</sup>, who emphasized poorer self-care in lower-income groups. No significant associations were found between high-risk foot conditions and gender ( $p = 0.159$ ), smoking habits ( $p = 0.462$ ), or alcohol consumption ( $p = 0.338$ ). These findings contrast with Al-Mohaithef et al.<sup>9</sup>, who identified smoking as a significant risk factor, possibly reflecting demographic and cultural variations in study populations. Similarly, no significant associations were observed between the type of diabetes

treatment and high-risk foot conditions, whether participants were on oral hypoglycemic drugs ( $p = 0.446$ ), insulin therapy ( $p = 0.101$ ), or a combination of both ( $p = 0.437$ ). These findings are consistent with Amini et al.<sup>12</sup> but differ from Al-Mohaithef et al.<sup>9</sup>, who found insulin therapy associated with higher risk, potentially due to its use in advanced disease stages.

The study emphasizes the significant role of **Inlow's 60-second screening tool** in assessing diabetic foot risk, providing a reliable and efficient method for early detection and management of foot complications in diabetic patients. This tool revealed that 77% of participants fell into the very low/no risk category (category 0), requiring annual screenings, 21% were classified as low risk (category 1) needing biannual assessments, and 2% were categorized as moderate risk (category 2) requiring screenings every 3–6 months. These findings align closely with studies like Akila et al.<sup>10</sup>, where 82.1% were very low risk, though slight variations in the distribution may be attributed to population differences. Notably, Al-Mohaithef et al.<sup>9</sup> reported higher proportions in low and moderate-risk categories, likely due to the inclusion of participants with prior or active diabetic foot ulcers, who were excluded from this study.

The study also highlighted a strong correlation ( $p < 0.001$ ) between the tool's components and the risk of developing high-risk foot conditions. Participants frequently exhibited foot abnormalities, with 22% showing dry skin and mild callus, 15% with unkempt or ragged nails, and 22% having absent pedal pulses. Loss of protective sensation (LOPS), a key indicator of peripheral neuropathy, was observed in 54.5% of participants, consistent with similar studies by Vibha et al.<sup>11</sup> (51.8%), Amini et al.<sup>12</sup> (47.55%), and Akila et al.<sup>10</sup> (46.2%). The slightly higher prevalence of LOPS in this study may be linked to the widespread poor glycemic control among participants, with 98% exhibiting HbA1c levels  $\geq 7\%$ .

Peripheral arterial disease (PAD), indicated by absent pedal pulses and other symptoms like cool foot (3.5%) and dependent rubor (2%), was present in 8% of participants, aligning closely with Vibha et al.<sup>11</sup> (10.8%) and Al-Mohaithef et al.<sup>9</sup> (19.4%). Improper footwear was noted in 32% of participants, underscoring the critical need for education on appropriate foot care and footwear to prevent complications. Compared to Al-Mohaithef et al.<sup>9</sup>, who reported 33.5% with inappropriate footwear, this finding reflects a consistent challenge among diabetic populations.



While the study excluded patients with prior diabetic foot ulcers, it revealed significant abnormalities in those without a history of such complications, reinforcing the need for proactive foot care in this population. The strong reliability of Inlow's tool, as validated by Murphy et al.<sup>8</sup>, makes it a valuable addition to clinical practice for routine diabetic foot care. Integrating this tool into regular diabetes management can facilitate early detection, targeted interventions, and prevention of severe complications, ultimately improving outcomes and reducing the burden of diabetic foot ulcers.

The study's small sample size limited statistical power, making it difficult to detect smaller associations between risk factors and high-risk feet in diabetic patients. The cross-sectional design provided only a snapshot, hindering the assessment of temporal relationships. Key factors beyond diabetes, such as peripheral neuropathy and arterial disease, were not considered. Reliance on self-reported data for lifestyle factors also introduced potential bias.

Inlow's 60-second screening tool (which requires only 5 minutes for screening), was effective for early detection of diabetic foot risk, highlighting the importance of routine screenings for timely interventions. The study emphasized the need for strict glycemic control, foot care, and patient education, particularly for older patients and those with comorbidities. A multidisciplinary approach, including vascular assessments and neuropathy management, is recommended. Integration of Inlow's screening tool into routine care, along with comprehensive diabetes management, can improve patient outcomes and reduce complications.

#### Declarations

**ETHICAL CONSIDERATION:** The study was conducted after getting approval from the Institutional Ethics Committee. Each subject was given a consent form to fill. Subjects have explained the purpose of the study and his/ her right to quit at any time without giving the reasons. The patient's information was dealt with confidentiality. Any abnormality detected during the screening of subjects was appropriately managed.

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TABLES-

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	Dyslipidemia	48%
	Smoking	41%
	Abnormal alcohol intake	19%
Hba1c	<7	2%
	7 and above	98%
FBG (mg/dl)	80-130	25%
	>130	75%
PPBG (mg/dl)	<180	34%
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Treatment	OHAS	72%
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**Table 2: Inlow's 60-sec screening test of the study subjects (n-100)**

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<b>1.skin and nail changes</b>			
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	Dry with fungus or light callus	22	22
	Heavy callus buildup	2	1
	Open ulceration or history of previous ulcer	0	0
Nails	Well-groomed and appropriate length	84	84
	Unkempt, and ragged	15	15
	Thick, damaged, or infected	1	1
<b>2. peripheral neuropathy/loss of protective sensation</b>			
Foot Sensation- Monofilament testing	No: Loss of protective sensation was not detected (sensation was present at all sites)	46	45
	Yes: Loss of protective sensation detected (sensation was missing at one or more sites)	54	55
Foot Sensation- do they ever:	feel numb?	33	33
	Tingle?	15	15
	Burn?	22	22
	Feel like insects crawling on them?	1	1
<b>3.peripheral arterial disease</b>			
Dependent rubor	Yes	2	2
	No	98	98
Cool foot	Yes	3	4
	No	97	96
Pedal Pulses	Present	78	78
	Absent	22	22
<b>4. Bony Deformity (and Footwear)</b>			
Deformity	No deformity	100	100
	Deformity	0	0
	Amputation	0	0
	Acute charcot	0	0
Range of motion	Full range of hallux	97	97
	Limited range of motion of hallux	3	3
	Rigid hallux	0	0
Foot wear	Appropriate	68	68
	Inappropriate	32	32
	Causing trauma	0	0



**Table-3 Diabetic risk categories across each variable with chi square test.**

Variables		Category 0		Category 1		Category 2		Chisquare test P value
		N	%	N	%	N	%	
Age group (figure 2)	<=40	6	85.7%	1	14.3%	0	0.0%	<b>Chisquare = 13.755, df=6, p=0.032</b>
	40-50	27	93.1%	2	6.9%	0	0.0%	
	50-60	27	79.4%	7	20.6%	0	0.0%	
	>60	17	56.7%	11	36.7%	2	6.7%	
Gender	Male	35	72.9%	13	27.1%	0	0.0%	Chisquare = 3.673, df=2, p=0.159
	Female	42	80.8%	8	15.4%	2	3.8%	
Income	<20,000	25	73.5%	7	20.6%	2	5.9%	<b>Chisquare = 10.052, df=4, p=0.040</b>
	20,000 - 40000	30	69.8%	13	30.2%	0	0.0%	
	>40,000	22	95.7%	1	4.3%	0	0.0%	
Educational qualifications	Illiterate	13	68.4%	5	26.3%	1	5.3%	<b>Chisquare = 19.153, df=12, p=0.085</b>
	5th PASS	3	60.0%	1	20.0%	1	20.0%	
	8th PASS	9	100.0%	0	0.0%	0	0.0%	
	10th PASS	10	76.9%	3	23.1%	0	0.0%	
	12th PASS	17	65.4%	9	34.6%	0	0.0%	
	Graduate	18	85.7%	3	14.3%	0	0.0%	
Duration of DM (figure 3)	5-10	67	83.8%	12	15.0%	1	1.3%	<b>Chisquare = 18.655, df=4, p=0.001</b>
	10-15	9	64.3%	4	28.6%	1	7.1%	
	15-20	1	16.7%	5	83.3%	0	0.0%	
Hypertension	Yes	40	69.0%	16	27.6%	2	3.4%	<b>Chisquare = 5.459, df=2, p=0.065</b>
	No	37	88.1%	5	11.9%	0	0.0%	
Coronary artery disease	Yes	13	44.8%	14	48.3%	2	6.9%	<b>Chisquare = 24.857, df=2, p&lt;0.001</b>
	No	64	90.1%	7	9.9%	0	0.0%	
Dyslipidemia	Yes	39	81.3%	9	18.8%	0	0.0%	<b>Chisquare = 2.285, df=2, p=0.319</b>
	No	38	73.1%	12	23.1%	2	3.8%	
Alcohol	Yes	17	89.5%	2	10.5%	0	0.0%	<b>Chisquare = 2.168, df=2, p=0.338</b>
	No	60	74.1%	19	23.5%	2	2.5%	
Smoking	Yes	29	70.7%	11	26.8%	1	2.4%	<b>Chisquare = 1.546, df=2, p=0.462</b>
	No	48	81.4%	10	16.9%	1	1.7%	
OHAs	Yes	57	80.3%	13	18.3%	1	1.4%	<b>Chisquare = 1.614, df=2, p=0.446</b>
	No	20	69.0%	8	27.6%	1	3.4%	
Insulin	Yes	6	54.5%	5	45.5%	0	0.0%	<b>Chisquare = 4.576, df=2, p=0.101</b>
	No	71	79.8%	16	18.0%	2	2.2%	
OHAs + Insulin	Yes	13	76.5%	3	17.6%	1	5.9%	<b>Chisquare = 1.654, df=2, p=0.437</b>
	No	64	77.1%	18	21.7%	1	1.2%	

Variables	Diabetic foot risk category						ANOVA test P value
	Category 0		Category 1		Category 2		
	Mean	SD	Mean	SD	Mean	SD	
FBS	154.2	41.0	165.4	26.5	199.0	48.1	F=1.875, df=2,



							p=0.159
PPBS	201.8	54.4	225.2	43.7	273.5	101.1	F=3.141, df=2, p= <b>0.048</b>
HBA1C	8.6	1.2	10.4	1.5	10.3	.1	F=17.422, df=2, p< <b>0.001</b>

**Table 4- Diabetic foot risk categories across each group with ANOVA test**

**FIGURES LEGEND**

**FIG1** -Diabetic foot risk categories of the study subjects

**FIG2**- mean FBS/PPBS/HB1AC of different diabetic foot category