However, it may not be always feasible during pregnancy to distinguish the latter 2 conditions from mere GDM, especially in patients with blood sugars that are difficult to control.

Remarks on the current status of diabetic terminology and abbreviations. The first remark is the notion that the ADA emphasized the use of the Arabic numbers (1 and 2) rather than the Roman numbers (I and II) for describing type 1 and type 2 diabetes. The argument presented in the guidelines is to avoid confusion by the public; that is referring to type II diabetes as type 11 diabetes.[4] We ourselves did not imagine that this could occur in real life, until one of us has recently received an invitation from a drug representative to attend a diabetes lecture. The invitation card did clearly read type 11 diabetes. This appeared as a part of the lecture title, and in bold and neat font.

The second remark is the observation that the new guidelines did not offer suggestions for standardized abbreviations. As the introduced terminologies in the new guidelines resulted in long names, for example type 2 DM, the use of arbitrary abbreviations becomes inevitable in clinical practice. Needless to say, abbreviations facilitate medical communications, and they are thus integral to the practice of medicine. However, abbreviations need standardization; physicians always encounter problems resulting from the use of non-standardized abbreviations in various practice communications. The result in the case of diabetic terminology is the appearance of yet, new forms of abbreviations that may set the stage for further confusion among physicians themselves, and between physicians and the other paramedical members in the management team.

In this regard, and as practicing physicians, we continue to observe the persisting use of obsolete diabetic terminology, in addition to the use of bizarre diabetic abbreviations. Among an endless list of encounters, we would like to share the following example to illustrate the issue discussed here. A consultation form was filled-up by a junior trainee at a major teaching hospital. The unique abbreviation used to describe type 1 diabetes in this consultation was quite bizarre and confusing, and it only indicates the persisting uncertainty regarding diabetes terminology. The trainee used a term that read as DDMI; the trainee obviously used the first letter as the Greek delta (to denote diagnosis) and the Roman number I to indicate type one. Certainly, the rush of handwriting brought about the confusion observed in the aforementioned example, but the use of a mixture of letters, digits and symbols in this example contributed further to this confusion. Even when vague handwriting is not a problem, the use of non-standardized abbreviations is discouraged when it comes to a common disease like diabetes. This also applies to medical literature. Although physicians who are closely related to diabetes are compliant with the new terminology, some physicians in other disciplines are not. As observed in clinical practice, IDDM and NIDDM as well as type II and type I terms are still in use in the literature.

Recommendation for new abbreviations. To standardize diabetic terminology, we recommend using the following relevant abbreviations, DM-1 and DM-2, to indicate type 1 diabetes and type 2 diabetes. The use of the dash sign herein serves to separate the letters from the digits, and also gives the impression of categorization. We believe that adherence to these abbreviations will help standardize diabetic nomenclature. The authors are unaware if such abbreviations have been officially used previously.

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References

1. Al-Nuaim AR. Prevalence of glucose intolerance in urban and rural communities in Saudi Arabia. ***Diabet Med*** 1997; 14: 595-602.
2. Classification and diagnosis of diabetes mellitus and other categories of glucose intolerance. National Diabetes Data Group. ***Diabetes*** 1979; 28: 1039-1057.
3. World Health Organization (WHO). Diabetes Mellitus, report of the Study Group, Geneva. WHO Tech Report Ser No. 727 1985. Available from: URL: http://www.who.int
4. The Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. Report of the expert committee on the diagnosis and classification of Diabetes Mellitus. ***Diabetes Care*** 1997; 20: 1183-1197.
5. The Expert Committee on the Diagnosis and Classification of Diabetes Mellitus: Report of the expert committee on the diagnosis and classification of Diabetes Mellitus. ***Diabetes Care*** 2003; 26: S5-S20.

A survey of patients' attitude toward total knee replacement in a major center in the Kingdom of Saudi Arabia

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Knee osteoarthritis (OA) is a common problem. In the Kingdom of Saudi Arabia (KSA), it has an estimated prevalence of 36-60% in some regions.[1] In some patients the pain becomes chronic

and interferes with the daily activities. Treatment of knee OA usually starts with conservative measures such as physiotherapy, general conditioning, lifestyle modification, and medical management. Surgical treatment is necessary in a small number of patients who fail conservative treatment. Commonly used procedures include arthroscopic debridment, realignment osteotomy, unicompartmental knee arthroplasty and total knee replacement (TKR).

Total knee replacement is the single most effective surgical procedure for severe OA. In carefully selected patients, it can provide reliable pain relief but may not permit a return to the activities that the patient desires, such as the ability to do deep knee flexion, which is commonly practiced in this part of the world, such as praying, eating and social gatherings. Similar to any other invasive procedure, TKR surgery has potential complications.[2] General complications include the risk of anesthesia, bleeding, and deep vein thrombosis (DVT). Specific complications include superficial and deep infections, vascular and neurological injury, stiffness, instability, continued pain, and loosening. When compound with misinformation, these potential complications lead many patients to refuse TKR surgery, thus depriving themselves of a chance for a major improvement from their symptoms; when surgical treatment is known to give better results.[3] The aim of this report was to evaluate patient's attitude toward having TKR surgery and identify factors that might influence their decision.

A total number of 230 patients with advanced knee OA attended the outpatient clinic at King Fahad National Guard Hospital, Riyadh, KSA between September 1 and December 31, 2003. The clinical diagnosis of OA was made according to the American College of Rheumatologists (ACR) criteria.[4] The Kellgren and Lawrence grading system of OA,[5] was used to describe the radiological severity of the knee OA with grade one being the mildest and grade 4 being the most advanced. Sixty patients (26%) were surgical candidates and are included in this report. To be a surgical candidate, the patient must have clear and consistent symptoms. The clinical examination must correlate with the symptoms, and radiological investigations must confirm the pathology. Further more, the patient must have had an adequate trial of nonsurgical treatment for a minimum of 3 months. They must be fit for anesthesia. Each patient underwent a structured interview by the treating team. The Western Ontario and McMaster Universities (WOMAC) OA index was used to asses these patients.[6] The WOMAC OA index score features 3 subscales that measure pain, stiffness, and physical function. Higher scores represent poorer function or worse pain.

The proposed procedure was explained to each patient in layman terms and potential complications were discussed. The patient's response to the proposed surgery was assessed. For those who refused surgery, the patients were asked to express the reason for refusal in their own words. Of the 60 patients included in this report, 47 were females and 13 were males. There were 45 housewives, 10 retired, 3 employees and 2 teachers. Fifty patients (83%) had help available at home. The main diagnosis included degenerative OA in all patients. The mean duration of symptoms was 8 years (range 2-16). Co-morbid conditions existed in 47 patients (78%). These included hypertension, diabetes, fibromyalgia, hypothyroidism, chronic renal failure, rheumatoid arthritis, spinal stenosis, peptic ulcer, transient ischemic attacks, and asthma. Four patients had previous surgery on their knees, 3 had high tibial osteotomy and one had arthroscopy. The type of surgery offered was TKR in all patients.

Of the whole group of 60 patients, 20 (33%) agreed to surgery and the remaining 40 patients (67%) refused surgery for various reasons. These included fear of failed surgery in 19, the thought that TKR surgery is too dangerous in 15, afraid of stiffness in 12, the thought that they were too old for surgery in 11, symptoms not severe enough in 10, afraid of death in 9, misinformation in 5, failed previous surgery in one, and the need for a second opinion in one. Twenty-three patients gave more than one reason for refusing the surgery. Patients who agreed to surgery had a slightly higher value on the WOMAC OA index score. Their mean radiological grading was 3.8 as compared to a mean grade of 3.7 for those who refused surgery. There were no significant differences in the demographic data, the knee score, or the radiological grading between the 2 groups (**Table 1**). Mantel-Haeuszel Chi-Square test result was not statistically significant (p=0.9972), thus indicating that WOMAC OA index score was not correlated with

Table 1 - Characteristics of study patients.

Characteristics	All patients n=60	Agreeing n=20	Refusing n=40
Mean age (years)	64 (49-80)	64 (49-80)	66 (51-80)
Male : Female	13:47	3:17	9:31
Mean height (cm)	160	160	159
Mean weight (kg)	75	72	76
Prevalence of co-morbidity (%)	47 (78)	13 (65)	34 (85)
Mean duration of symptoms (years)	8 (2-16)	6 (3-12)	7 (2-16)
WOMAC osteoarthritis index score (90-96)	59 (39-83)	63 (42-82)	57 (39-83)

WOMAC - Western Ontario and McMaster Universities

agreement for surgery. Most middle-aged Saudi people have a sedentary life style. Social and economic factors led to the availability of immediate help at home in the form of family members or hired domestic help. These factors, when combined with the slow and chronic nature of OA, lead many patients to accept their symptoms and physical limitation as part of the natural aging process. Lack of knowledge and misunderstanding of the disease and the treatment options as well as misinformation regarding TKR lead many patients to become reluctant to accept it. With careful patient selection, TKR has been shown to diminish pain and decrease disability more efficiently than commonly used nonsurgical treatments. Modern TKR is safe, effective and carries a risk rate comparable to other surgical disciplines. Gill et al,[7] reported on the 5-8 years follow-up (mean 10 years) of TKR in patients less than 55 years old. In that series, only 2 of 72 knees required revision, and function was good or excellent in all knees. Other studies found similar results in the older age group.[8]

While it is quite possible that other factors such as the specific institute and the specific surgeon might influence the patient's decision to undergo TKR, our report still showed a high refusal rate (67%) among local patients. No specific influencing factor could be identified in our study group. Pain and disability as measured by the WOMAC OA index score did not seem to be a factor. A thorough Medline search failed to produce any similar reports. Patient education about the disease process and the contemplated surgery are crucial in helping them to make an informed and reasonable decision.

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References

1. Al-Arfaj AS, Alballa SR, Al-Saleh SS, Al-Dalaan AM, Bahabry SA, Mousa MA, et al. Knee Osteoarthritis in Al-Qaseem, Saudi Arabia. ***Saudi Med J*** 2003; 24: 291-293.
2. Huo MH, Sculco TP. Complications in primary total knee arthroplasty. ***Orthod Rev*** 1990; 19: 781-788.
3. Felson DT, Naimark A, Anderson J, Kazis L, Castelli W, Meenan RF. The prevalence of knee osteoarthritis in the elderly: The Framingham Osteoarthritis Study. ***Arthritis Rheum*** 1987; 30: 914-918.
4. Altman R, Asch E, Bloch D, Bole G, Borenstein D, Brandt K, et al. Development of criteria for the classification and reporting of osteoarthritis. Classification of osteoarthritis of the knee. Diagnostic and Therapeutic Criteria Committee of the American Rheumatism Association. ***Arthritis Rheum*** 1986; 29: 1039-1049.
5. Kellgren JH, Lawrence JS. Radiological assessment of Osteoarthritis. ***Ann Rheum Dis*** 1957; 16: 494-501.
6. Bellamy N. Pain assessment in osteoarthritis: experience with the WOMAC osteoarthritis index. ***Semin Arthritis Rheum*** 1989; 18 (Suppl 2): 14-17.
7. Gill GS, Chan KC, Mills DM. 5- to 18-year follow-up study of cemented total knee arthroplasty for patients 55 years old or younger. ***J Arthroplasty*** 1997; 12: 49-54.
8. Gill GS, Joshi AB, Mills DM: Total condylar knee arthroplasty: 16 to 21-year results. ***Clin Orthop*** 1999; 367: 210-215.

Congenital adrenal hyperplasia due to 3 beta-hydroxysteroid dehydrogenase type II deficiency in 4 Saudi children. *Long term follow up*

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Classical 3 beta-hydroxysteroid dehydrogenase type II (HSD_3B_2) deficiency is a rare type of congenital adrenal hyperplasia that impairs steroidogenesis in both the adrenals and the gonads, resulting from mutations in the HSD_3B_2 gene. The clinical spectrum of this inherited disease is heterogeneous and ranges from the severe salt-wasting form with or without ambiguous genitalia to the non salt-wasting form, with ambiguous genitalia and premature puberache in young children or both, and hirsutism and menstrual disorders in older females.[1] Congenital adrenal hyperplasia secondary to 21 hydroxylase and 11 hydroxylase deficiencies have been described in Saudi children, however, there are no published reports on HSD_3B_2 deficiency. We report here our long term experience with 4 Saudi siblings who were diagnosed with HSD_3B_2 deficiency based on the revised hormonal diagnostic criteria.[2] The patients are 3 brothers and one sister. Parents are first degree relatives who had another 3 normal children. The oldest brother is 20 years old. He presented at the second week of life with vomiting and dehydration. He was found to have penoscrotal hypospadias and palpable testes within the bifid scrotum. Electrolytes profile, showed hyperkalemia (potassium level of 10.7 mmol/L), hyponatremia (Sodium level of 115 mmol/L) and acidosis. He had normal male karyotypes and absent mullerian structures on pelvic ultrasound. Three beta-hydroxysteroid dehydrogenase type II deficiency was suspected based on elevated adrenocorticotropic hormone (ACTH) level of 257 pmol/L (0-10.2), low serum cortisol (F) level of 0.058 mmol/L and low testosterone (T) level of <0.3 nmol/L (0.4-0.7). He was started on hydrocortisone 5mg twice a day and fludrocortisone 0.1mg once a day. Adrenocorticotropic hormone stimulation test