34.4%) and finally angiotensin II receptor blockers (45.1% vs. 36.2%). The number of antihypertensive drugs have a less significant effect on PA in compared to groups with vitamin D ($P < 0.001$).
Conclusions Supplementation with vitamin D improved the control of BP in our studied population. It seems desirable to encourage the prescription of a dual therapy containing a diuretic in hypertensive patients with supplementation in vitamin D. Further studies are necessary to better explore the plasma level of vitamin D and the efficiency of different classes of antihypertensive treatment.
Disclosure of interest The authors declare that they have no competing interest.

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Generic vs. brand-name drugs for the treatment of hypertension

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Although antihypertensive generics and their brand-name counterparts are bioequivalent, their equivalence in lowering blood pressure and controlling hypertension is still debated. We thus, sought to compare the effect of generic and brand-name drugs in hypertensive patients.
We conducted an open crossover randomized controlled trial (NCT02853045) in which patients were allocated to take their usual antihypertensive treatment either exclusively with brand-name drugs for 6 weeks and then to switch for generics for another 6 weeks or following the opposite order. 24 h ambulatory blood pressure (ABP) was monitored twice, at the end of each 6-weeks period. We tested the hypothesis that generics were not worse than branded antihypertensive drugs for controlling hypertension with a non-inferiority margin of 7 mm Hg.
Forty three patients (mean age of 61 ± 12 years, 73% male, 35% of kidney transplant patients) were included. Sixty % of them were under triple antihypertensive treatment (angiotensin renin blockers and channel calcium blockers being taken by 88% and 72% of the patients, respectively). Mean 24 h ABP was 129/77 mmHg and 128/77 mmHg for patients under generics and branded drugs, respectively. 58% ($n = 25$) of patients presented optimal BP with generics vs. 69% ($n = 30$) with brand-name drugs. 18% ($n = 8$) of patients presented resistant hypertension with generics vs. 11% ($n = 5$) with branded drugs. The differences of proportion were not statistically significant. Non-inferiority was confirmed in all subgroup analyses independently of age, gender, number of medications, severity/resistance of hypertension and dipper status. Reported adverse events were not different in nature and in frequency between generic and branded drugs.
Our findings support the notion that generics are not inferior than brand-name antihypertensive agents and can be safely used at least for the control of blood pressure. These results need to be confirmed in a larger cohort of patients allowing us the performed analysis according the class of antihypertensive drugs.
Disclosure of interest The authors declare that they have no competing interest.

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Evaluation of the ExSel® autoquestionnaire to screen for an excess salt intake in patients followed in a nephrology consultation

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Aim To evaluate the reliability of the ExSel® autoquestionnaire to detect an excess salt intake (≥ 12 g/24 h) in patients consulting for hypertension and/or renal failure.
Method The ExSel® autoquestionnaire (proposed from a population of around 100 hypertensive patients) was filled by 104 consecutive patients. Results were compared to 24 h sodium excretion using the Cohen's kappa test, a Chi^2. Sensitivity, specificity, VPP and VPN were calculated. A ROC curve was realized to find an accurate cutoff.
Results Mean characteristics of the 101 patients with reliable results were: age of 67 ± 12 years, SBP/DBP 139 ± 23/74 ± 13 mmHg (98% were hypertensives, 47% were not controlled, and 23% had resistant hypertension, 78% had a eGFR < 60 ml/min/1.73m^2, 39% were on diuretics, mean number of hypertensive drugs was 2.6 ± 1.5/day), BMI 28.4 ± 5.6 Kg/m^2, and creatininuria was 13.9 ± 20.1 mmol/24 h. Mean salt intake was 8.2 ± 3.1 g/24 h in men and 5.7 ± 2.4 g/24 h in women. An excess salt intake (≥ 12 g/24 h) was observed in 8% of the patients. The Kappa test at 0.17 and the Chi^2 at 0.66 signify that the agreement was very low. Sensitivity was 37%, specificity 90%, PPV 20% and NPV 94%. To check if another threshold could be used to detect an excessive salt intake using the ExSel® autoquestionnaire an area under the curve ROC was realized. Unfortunately, the AUC was too low (0.665) which did not allow to determine a threshold adapted to the renal patients.
Conclusions The ExSel® autoquestionnaire is not adapted to outpatients, mainly hypertensives (98%) followed in a nephrology consultation.
Disclosure of interest The authors declare that they have no competing interest.

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Modulation of the intestinal microbiota by apple cider vinegar in rats subjected to cafeteria diet

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Background Etiology of obesity is complex and multifactorial. The intestinal microbiota seems to play a major role in the development of this pathology. In addition, environmental factors can modulate the composition of the intestinal microbiota and promote or prevent the development of metabolic abnormalities. Our previous work has shown that apple cider vinegar (ACV) improves the serum lipid profile in rats.
Purpose This study aims to discern whether the ACV could modulate gut microbiota in Wistar rats subjected to a cafeteria diet.
Methods Twenty-four male adult Wistar rats (145 ± 05 g) were split into 3 groups with 8 rats each: Group (1): received standard laboratory diet and served as a control. Groups (2) and (3) received cafeteria diet for 90 days. Group (3) was daily administered apple cider vinegar (7 mL/kg) by gavage. Anthropometric measurements (weight, body length, BMI) are performed on Day 0 and Day 90. At the end of the experiment, animals are sacrificed and the contents of the colon and feces are freshly collected under sterile conditions to verify their microbial quality by a microbiological study.