**DHerbKB for CKD: knowledge base of diet and toxic herbal medicines for patients with chronic kidney disease**

**Supplementary Table 1. Full-day dietary schedules for evaluation of the recommendation system.**

**Supplementary Table 2. Chinese herbal medicines with warnings.**

**Supplementary Table 3. Evaluation of the DHerbKB recommendation system on supporting diet arrangement.**

**Supplementary Table 1. Full-day dietary schedules for evaluation of the recommendation system.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dietary schedule | Diet 1 - for obesity | Diet 2 - for obesity | Diet 3 - for obesity | Diet 4 - for diabetes |
| Total nutrients | **Energy: 1200kcal, Protein: 64g, Sodium<5g, Potassium: 1725.6mg, Phosphorus: 703.5mg** | **Energy: 1400kcal, Protein: 71g, Sodium<5g, Potassium: 3633.7mg, Phosphorus: 1020.45mg** | **Energy: 1600kcal, Protein: 81g, Sodium<5g, Potassium: 3606.55mg, Phosphorus: 1450.05mg** | **Energy: 2000kcal, Protein: 102g, Sodium: 5g, Potassium: 1764.65mg, Phosphorus: 1144.65mg** |
| Breakfast | steamed bun (flour 50g), boiled egg (egg, 50g), low-fat milk (250mL), spinach Chinese salad (spinach 100g) | Bagel Burger (Egg 50g, Whole Wheat Bagel 60g, Lettuce 20g, Tomato 30g), Yogurt (200g), | Oatmeal (Rolled Oats 50g, Skim Milk 250mL) Dressed Celery (Celery 150g) Boiled Egg (Egg 50g) | Dry-Fried Beef with Rice Noodles (Beef 75g, Rice Noodles 90g, Water Spinach 50g) Pure Milk (300ml) Pumpkin Seeds (15g) |
| Snack | Apple (200g) | Apple (100g) | / | Starfruit (100g) |
| Lunch | mixed-grain rice (rice 30g, millet 20g), stewed fish (crap 50g, tofu 50g, Chinese cabbage 100g, astragalus 5g, star anise 3g) | Red Bean and Millet Rice (Adzuki Beans \*15g, Millet 10g, Japonica Rice 35g) Stir-fried Celery (Celery 120g) Stir-fried Shiitake Mushrooms and Chicken (Fresh Shiitake Mushrooms 40g, Chicken Thigh Meat 20g) Spicy Beef Salad (Beef 45g, Cilantro 10g, Thai Chili 3g, Ginger 3g, Onion 15g, Dried Wood Ear Mushroom 5g) Kombu Tofu Soup (Dried Kombu \*5g, Soft Tofu 10g) | Multigrain Rice (Rice 50g, Naked Barley 15g) Stir-fried Winter Purslane (Winter Purslane 200g) Radish and Fish Soup (White Radish 150g, Crucian Carp 100g, Perilla Leaves \*10g, Ginger \*2g) | Rice (Japonica Rice 100g) Boiled Amaranth (Amaranth 100g) Stir-fried Chayote with Eggs (Eggs 60g, Chayote 100g) Tofu and Yellow Catfish Soup (Enoki Mushrooms 50g, Yellow Catfish 75g, Tofu 90g) |
| Snack | / | Dragon Fruit (80g) | Orange (200g) | / |
| Dinner | Vegetable wraped rice (lettuce 100g, rice 30g, millet 20g, pork tenderloin 50g, potato 30g), soup of dried shrimp, radish and boccili (boccili 100g, radish 30g, dried shrimp 10g) | Mixed Grains Rice (Black Rice 15g, Japonica Rice 30g) Stir-fried Asparagus (Asparagus 100g) Shepherd's Purse with Mushrooms and Pork Slices (Shepherd's Purse 120g, Button Mushrooms 30g, Lean Pork 30g) Spinach Steamed Cake (Spinach 30g, Egg 50g) Bamboo Fungus and Cucumber Soup (Dried Bamboo Fungus 10g, Cucumber 30g) | Multigrain Rice (Rice 40g, Corn Grits 15g) Stewed Chinese Artichoke (Chinese Artichoke 150g, Fresh Mushrooms 50g, Fresh Bamboo Shoots 100g) Minced Pork with Tofu (Firm Tofu 120g, Lean Pork 25g) | Two-Grain Rice (Rice 70g, Millet 30g)  Eggplant with Minced Pork (Eggplant 100g, Lean Pork: 50g)  White-Cut Chicken (5Chicken 50g)  Coix Seed Cooked with Old Duck (10g of Coix Seed: 10g, Duck Meat: 25g) |

**Supplementary Table 1. Full-day dietary schedules for evaluation of the recommendation system. (continued)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Dietary schedule | Diet 5 - for diabetes | Diet 6 - for diabetes | Diet 7 - for diabetes\* | Diet 8 - Mediterranean diet for CVD prevention# |
| Total nutrients | **Energy: 2000kcal, Protein: 112g, Sodium: 5g, Potassium: 2984mg, Phosphorus: 1605.7mg** | **Energy: 2000kcal, Protein: 112g, Sodium: 5g, Potassium: 2984mg, Phosphorus: 1605.7mg** | **Energy: 1800kcal, Protein: 74g, Sodium: 5g, Potassium: 4752.2mg, Phosphorus: 2151.9mg** | **Energy: 1500kcal, Protein: 120g, Sodium<5g, Potassium: 4203.38mg, Phosphorus: 1518.83mg** |
| Breakfast | Oatmeal and Yam Porridge (Oats 30g, Yam \*90g) Low-fat Milk (250ml) Boiled Egg (Egg 50g) Cold Dressed Houttuynia (Houttuynia \*150g) | Multigrain Cornbread (Cornmeal 10g, Buckwheat Flour 20g, Wheat Flour 25g) Pure Milk (250ml) Boiled Egg (Egg 50g) Stir-fried Onion and Wood Ear Mushrooms (Onion 80g, Wood Ear Mushrooms 40g) | Whole-wheat bread:two slices  Caffè latte with non-fat milk: one tall  Tuna,light in water:115g   Scrambled egg: one egg   Olive oil: two tea spoons   Yogurt and cereal: one container  Granola bar,dark chocolate: one bar | ***Fruit: Three or more servings of fresh fruit and natural fruit juices per day.*** Orange: one, medium Apple juice: 3/4cup  Mango: raw, pieces, one cup ***Vegetables: Two or more servings per day (at least one serving raw or as a salad).*** Lettuce salad: 150g  Broccoli: boiled 50g Tomato: one, medium, raw Carrot: raw, 50g  Celery: raw, 50g  Cabbage: raw, 50g ***Grains and Potatoes: Six servings of preferably whole grains per day.*** Dry Cereals: 30g \* 2 Whole-wheat Bread: two slices \*2  Baked Potatoes with Salt: 1/2 cups \*2  ***Legumes: Three or more servings per week*.** Boiled Peas with Salt: 50g ***Dairy: Two servings per day.*** Whole milk: one cup / 244g Plain Yogurt: 100g ***Tree Nuts: Three or more servings of raw, non-roasted, or fried nuts per week.*** Raw Walnuts: 30g ***Fish and seafood: Three or more servings of especially fatty fish per week.*** Boiled Tuna: 100g ***Consume white meat (eg, chicken, turkey, or rabbit) instead of red meat; remove skin and visible fat.*** Oven-roasted Chicken Breast: 50g ***Eggs: Two or four units per week.*** Boiled egg: one |
| Snack | / | / | / |
| Lunch | Multigrain Rice (Japonica Rice 30g, Black Rice 30g) Braised Pork with White Hyacinth Beans (White Hyacinth Beans 30g, Lean Pork 100g) Cold Dressed Tofu Skin and Broccoli (Broccoli 150g, Tofu Skin 50g) | Multigrain Rice (Black Rice 40g, Japonica Rice 30g) Cumin Lamb (Lamb 50g) Stir-fried Green Peppers with Tofu Skin (Tofu Skin 50g, Green Peppers 100g) Sponge Gourd and Mushroom Soup (Button Mushrooms 50g, Sponge Gourd 100g) | Apple: one apple  Roasted chicken breast: 115g  Diet drink: 236ml Salad, tossed greens: one salad  Vegetable soup: one cup  Olive oil: two tea spoons  Baked potato: one potato |
| Snack | Apple (200g) | Dragon Fruit (100g), Whole Wheat Crackers (50g) | / |
| Dinner | Multigrain Rice (Japonica Rice 30g, Quinoa 30g, Corn Kernels 20g) Steamed Perch (Perch 100g) Stir-fried Lettuce Leaves with Egg (Lettuce Leaves 200g, Egg 50g) | Mashed Potato with Buckwheat (Potato 150g, Buckwheat Flour 20g) Stir-fried Scallion and Pork Heart (Pork Heart 40g, Scallions 30g) Spicy Vinegar-Braised Lotus Root (Lotus Root 150g) Stir-fried Chives and Egg (Chives 100g, Egg 20g) | Caffè Americano: one large  Salad, fresh tomato and mozzarella: one order Salad, tossed greens: one salad  Turkey breast: three slices  Salad, mixed greens: one cup |

\* Reference: Jakubowicz D, et al. High-energy breakfast with low-energy dinner decreases overall daily hyperglycaemia in type 2 diabetic patients: a randomised clinical trial. Diabetologia. 2015 PMID: 25724569.

# Diet 8 was designed according to the principles of Mediterranean diet recorded in the reference: Delgado-Lista J, et al. Long-term secondary prevention of cardiovascular disease with a Mediterranean diet and a low-fat diet (CORDIOPREV): a randomised controlled trial. Lancet. 2022 (PMID: 35525255).

**Supplementary Table 2. Chinese herbal medicines with warnings.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Chinese Name | Chinese Pinyin | Latin Name | Medicinal Part | Toxicity Level\* | Category of toxic component | Toxic component | Recommended Dose | Toxic dose | Vernacular Name in Chinese |
| *Containing aristolochic acids* | | |  |  |  |  |  |  |  |
| 关木通 | Guan Mu Tong | *Isotrema manshuriense (Kom.) H. Huber* | Dried stem | / | Aristolochic acids | Aristolochic acids (马兜铃酸) | Removed from Pharmacopoeia |  | 东北木通，木通马兜铃，马木通，苦木通，桤木香 |
| 淮通 | Huai Tong | *Aristolochia moupinensis Franch* | Dried stem or root | / | As above | As above | As above |  | 淮木通，淮通马兜铃，理防己，木防已，岩见悉，冕宁防己 |
| 马兜铃 | Ma Dou Ling | *Aristolochia debilis Sieb. et Zucc* | Dried mature fruit | / | As above | As above | As above |  | 木香马兜铃，兜铃，马兜零，马兜铃，水马香果，葫芦罐，臭铃档，蛇参果，圆根马兜铃 |
| 百解  马兜铃 | Bai Jie Ma Dou Ling | *Aristolochia westlandii Hemsl* | Dried root | / | As above | As above | As above |  | 白金果榄，山总管，百解薯 |
| 南粤  马兜铃 | Nan Yue Ma Dou Ling | *Aristolochia howii Merr. Et Chun* | Dried rhizome | / | As above | As above | As above |  |  |
| 广防己 | Guang Fang Ji | *Aristolochia fangchi (Y. C. Wu ex L. D. Chow & S. M. Hwang) X. X. Zhu, S. Liao & J. S. Ma* | Dried root | / | As above | As above | As above |  | 木防己，防己，水防己，百银头，藤防己，黑蛇胆 |
| 大百解薯 | Da Bai Jie Shu | *Aristolochia kwangsiensis Chun et How [A. shukangii Chun et How]* | Dried rhizome | / | As above | As above | As above |  | 金银袋，大总管，萝卜防己，大青木香，大百解薯，金银袋，大总管，萝卜防己，大青木香 |
| 青木香 | Qing Mu Xiang | *Aristolochia debilis Sieb. et Zucc.* | Dried root | / | As above | As above | As above |  | 马兜铃根，汉中防己，兜铃根，土青木香，大青木香，独行根云南根，土木香，青藤香，蛇参根，铁扁担，痧药，野木香根，水木香根，白青木香，天仙藤根 |
| 大叶  青木香 | Da Ye Qing Mu Xiang | *Aristolochia austroszechuanica C.P.Chien ex C.Y.Cheng et J.L. Wu* | Dried rhizome | / | As above | As above | As above |  | 宜宾防己，川防己，南瓜叶广木香，葛藤香 |
| 天仙藤 | Tian Xian Teng | *Aristolochia debiLis Sieb.et Zucc， AristoLochia contorta Bge.* | Dried above-ground part | / | As above | As above | As above |  | 都淋藤，三百两银，兜铃苗，马兜铃藤，青木香藤，长痧藤，香藤 |
| 寻骨风 | Xun Gu Feng | *Isotrema mollissimum (Hance) X. X. Zhu, S. Liao & J. S. Ma* | Dried above-ground part | / | As above | As above | As above |  | 清骨风，猫耳朵，地丁香，黄木香，白面风 |
| 朱砂莲 | Zhu Sha Lian | *Aristolochia tuberosa C.F.Liang et S.M.Hwang， Kaempfer Dutchmanspipe* | Dried rhizome | / | As above | As above | As above |  | 辟虺雷，辟蛇雷，透水雷，辟水，九月生，一点血，躲蛇生，毒蛇药，避蛇生，辟水雷，雷见怕，牛血莲，管花马兜铃，白朱砂莲，南木香，红叶青木香，鼻血雷，万丈龙，一吊血，天然草 |
| 杜衡 | Du Heng | *Asarum forbesii Maxim.* | Dried whole plant, rhizome, or root | / | As above | As above | As above |  | 马蹄香, 土细辛, 马蹄细辛 |
| 大细辛 | Da Xi Xin | *Asarum maximum Hemsl， Asarum magnificum Tsiang ex C. Y. Cheng et C. S. Yang， Asarum magnificum Tsiang ex C. Y. Cheng et C. S. Yang var. dinghuense C. Y. Cheng et C. S. Yang* | Dried whole plant including root | / | As above | As above | As above |  | 马蹄细辛，苕叶细辛，花脸细辛， |
| 金耳环 | Jin Er Huan | *Asarum insigne Diels* | Dried whole plant | / | As above | As above | As above |  | 苕叶细辛，盘山草，山薯，土细辛，一块瓦，大叶细辛，大叶山茨菇 |
| 接气草 | Jie Qi Cao | *Asarum cuudigerellum C.Y.Cheng et C.S.Yang* | Dried whole plant | / | As above | As above | As above |  | 乌金七，黑脚猫，花脸细辛，毛乌金，双叶细辛，土细辛，苕叶细辛，圆叶细辛，马蹄香，尾叶细辛，藤藤细辛 |
| 尾花细辛 | Wei Hua Xi Xin | *Asarum caudigerum Hance， Asarum caudigerum Hancevar.cardiophyllum（Franch.）C.Y.ChengetC.S.Yang* | Dried whole plant | / | As above | As above | As above |  | 白三百棒，白马蹄香，魂筒草，铁螃蟹，花脸细辛，小麻药，土细辛，蜘蛛香，金耳环，马蹄香，马蹄金，白倒插花 |
| 花脸细辛 | Hua Lian Xi Xin | *Asarum splendens（Maekawa）C.Y.Cheng et C.S.Yang[Hetrotropa splendens Maekawa， A chingchengense C.Y.Cheng et C.S.Yang]* | Dried root, rhizome, or whole plant | / | As above | As above | As above |  | 花叶细辛，花脸猫，翻天印，水马蹄，土细辛，马蹄细辛 |
| 铜钱细辛 | Tong Qian Xi Xin | *Asarum debile Franch.* | Dried whole plant | / | As above | As above | As above |  | 胡椒七，小铜钱乌金，乌金草，小鸟金草 |
| 湘细辛 | Xiang Xi Xin | *Asarum ichangense C. Y. Cheng & C. S.Yang* | Dried root and rhizome | / | As above | As above | As above |  |  |
| 长毛细辛 | Chang Mao Xi Xin | *Asarum pulchellum Hemsl.* | Dried whole plant | / | As above | As above | As above |  | 白毛细辛，毛乌金，牛毛细辛 |
| 细辛 | Xi Xin | *Asarum heterotropoides Fr. Schmidt var. mandshuricum， Asarum sieboldii Miq.* | Dried root and rhizome | Mi | As above | Trace amounts of Aristolochic acid A (微量马兜铃酸A), Safrole (黄樟素), Methyl eugenol (甲基丁香酚), Asarone (细辛醚) | 1-3g for decoction, 0.5-1g for powder | No obvious toxicity was found after 24 weeks of oral administration in mice. | 华细辛，小辛，少辛，盆草细辛 |
| *Toxic herbs* | |  |  |  |  |  |  |  |  |
| 马钱子 | Ma Qian Zi | *Strychnos nux-vomica L.* | Dried mature seed | H | Alkaloids | Strychnine (士的宁), Brucine (马钱子碱) | 0.3-0.6g | Toxic dose: 1.5-3.0g, Lethal dose: Raw strychnos 7g | 番木鳖，马前子 |
| 草乌 | Cao Wu | *Aconitum kusnezoffii Reichb.* | Dried tuberous root | H | Alkaloids | Aconitine (乌头碱), Hypaconitine (次乌头碱), Neo-aconitine (新乌头碱), Benzoylaco-nine (苯甲酰乌头原碱) | Use processed monkshood only. Avoid the raw one. | Toxic dose: 3.0-4.5g | 乌头 |
| 附子 | Fu Zi | *Aconitum carmichaelii Debx.* | Subterranean tuber | Med | Alkaloids | As above, and Benzoylneoaconine (苯甲酰新乌头原碱), Benzoylhypa-conitine (苯甲酰次乌原碱) | 3-15g, prolonged decocting | Toxic dose: 20g | 附片，黑顺片 |
| 蓖麻子 | Bi Ma Zi | *Ricinus communis L.* | Dried mature seed | Med | Alkaloids | Ricinine (蓖麻碱) | 2-5g | Lethal dose: 8 beans for adults, 2-7 beans for child | 萆麻仁, 大麻子 |
| 山豆根 | Shan Dou Gen | *Sophora tonkinensis Gapnep.* | Dried root and rhizome | Med | Alkaloids | Matrine (苦参碱), Sophoridine (槐定碱)， Sophocarpine (槐果碱) | 3-6g | Toxic dose: 10g, Lethal dose: 60g | 广豆根，苦豆根，山大豆根 |
| 槟榔 | Bin Lang | *Areca catechu L.* | Dried mature seed | Med | Alkaloids | Arecoline (槟榔碱) | 3-10g | Toxic dose: 60g | 大腹子 |
| 狼毒 | Lang Du | *Euphorbia ebracteolata Hayata， Euphorbia fischeriana Steud.* | Dried root | Med | Alkaloids | Lycopaniculatine (狼毒碱), Chamaejasmenin B (狼毒宁B) | External use only | Lethal dose: 50g for fresh one. | 冷如, 白狼毒, 狼毒疙瘩, 黄皮狼毒, 猫眼睛，猫眼睛 |
| 闹羊花 | Nao Yang Hua | *Rhododendron molle G.Don* | Dried flower | H | Terpenoids | Rhodojaponin II (闹羊花毒素II), Veratramine (藜芦胺) | 0.6-1.5g | Toxic dose: 24g | 黄杜鹃, 羊踯躅花 |
| 商陆 | Shang Lu | *Phytolacca acinosa Roxb， Phytolacca americana L* | Dried root | Med | Terpenoids | Esculentoside A/B/C (商陆皂苷甲/乙/丙) | Decoction 3-9g, Powder 1.5-4.5g | Toxic dose: 20g. Looks like ginseng, avoid to eat by mistake. | 见肿消, 野萝卜 |
| 苍耳子 | Cang Er Zi | *Xanthium sibiricum Patr.* | Dried mature fruit with bract | Med | Terpenoids | Atractyloside (苍术苷), Xanthanolides (苍耳子醇) | 3-10g | Toxic dose: 20g | 羊负来, 葉耳实 |
| 苦楝皮 | Ku Lian Pi | *Melia toosendan Sieb.et Zucc. , Melia azedarach L.* | Dried bark of stem and root | Med | Terpenoids | Toosendanin (川楝素), Meliacarpin (苦楝素) | 3-6g | Toxic dose (mouse, LD50): 244.2mg/kg, Accumulated toxicity (mouse, LD50): 18.7mg/kg | 楝木皮，楝树枝皮 |
| 甘遂 | Gan Sui | *Euphorbia kansui T.N.Liou ex T.P.Wang* | Dried root tuber | Med | Terpenoids | Kansuinin A (甘遂萜酯A) | 0.5-1.5g for powder | Toxic dose: 9g | 主田，重泽，甘藁，陵藁，甘泽，苦泽，白泽，鬼丑，陵泽 |
| 芫花 | Yan Hua | *Daphne genkwa Sieb. et Zucc.* | Dried bud | Med | Flavonoids | Genkwanin (芫花素) | 1.5-3g for decoction, 0.6-0.9 for powder of vinega processed one | Toxic dose: 9g. Especially for the raw one. | 药鱼草，老鼠花，闹鱼花，头痛花，闷头花，头痛皮，石棉皮，泡米花，泥秋树，黄大戟，蜀桑，鱼毒 |
| 京大戟 | Jing Da Ji | *Euphorbia pekinensis Rupr.* | Dried root | Med | Flavonoids | Euphornin (大戟苷) | 1.5-3g for decoction, 1g for powder | Toxic dose: 5-9g | 大戟，邛钜，红芽大戟，紫大戟，下马仙 |
| 香加皮 | Xiang Jia Pi | *Periploca sepium Bge.* | Dried bark of root | Med | Cardiac glycosides | Periplocin (红柳毒苷) | 3-6g | Toxic dose (mouse, LD50): 10.6g/kg | 北五加皮，，五加皮，杠柳皮，臭五加，山五加皮，香五加皮 |
| 巴豆 | Ba Dou | *Croton tiglium L.* | Dried mature fruit | H | Aldehyde | Crotonaldehyde (巴豆醛) | External use only. | Toxic dose: 0.5-1 drop of croton oil. Lethal dose: 20 drops of croton oil | 巴菽, 双眼龙 |
| 木鳖子 | Mu Bie Zi | *Momordica cochinchinensis (Lour.) Spreng* | Dried mature seed | Med | Saponin | Trichosanthes Saponins (木鳖子皂甙) | 0.9-1.2g, concentration<2% for external use | Toxic dose (mouse, LD50): 4.03g/kg | 土木鳖, 木鳖瓜 |
| 牵牛子 | Qian Niu Zi | *Pharbitis nil (L.) Choisy， Pharbitis purpurea(L.) Voigt* | Dried mature seed | Med | Anthraquinones | Pharbitisin (牵牛子甙) | Decoction 3~6g， Powder 1.5~3g | Toxic dose: 15g | 黑丑, 白丑 |
| 白果 | Bai Guo | *Ginkgo biloba L.* | Dried mature seed | Med | Biflavonoid | Sciadopitysin (金松双黄酮), Ginkgolic acid (银杏酸), 4’-O-Methylpyridoxine (4’-O-甲基吡哆醇) | 5-10g or 5-10 nuts | Toxic dose: 20 nuts | 鸭脚子 |
| 钩吻 | Gou Wen | *Gelsemium elegans (Gardn.et Champ.) Benth.* | Dried whole plant | / | Alkaloids | Gelsemine (钩吻碱) | Not included in Pharmacopoeia. Highly toxic. No oral administration. | Lethal dose (rabbit, LD50): 0.8mg/kg weight | 野葛, 胡蔓草, 断肠草, 黄藤 |
| 藜芦 | Li Lu | *Veratrum nigrum L.， Veratrum schindleri Loes. f.， Veratrum maackii Regel， Veratrum dahuricum (Turcz.) Loes.f.， Veratrum grandiflorum (Maxim.) Loes.f.* | Dried root and rhizome | / | Alkaloids | Veratrine (藜芦碱), Veratridine (藜芦啶), Veratramine (藜芦胺) | Not included in Pharmacopoeia. | Highly toxic, especially the fresh one. | 木藜芦，山葱 |
| 粉防己 | Fen Fang Ji | *Stephania tetrandra S. Moore* | Dried fleshy root | / | Alkaloids | Tetrandrine (粉防己碱) | Not included in Pharmacopoeia. | Toxic dose: 30g | 汉防己，土防己，石蟾蜍 |
| 腊梅花 | La Mei Hua | *Chimonanthus praecox (Linn.)Link* | Dried flower bud | / | Alkaloids | Calycanthine (蜡梅碱) | Not included in Pharmacopoeia. | Lethal dose (mouse, LD50): 43.79mg/kg weight | 黄梅花，腊梅花，铁筷子花，雪里花，巴豆花，蜡花 |
| 黄独 | Huang Du | *Dioscorea bulbifera L.* | Dried tuber | / | Terpenoids | Diosbulbin B (黄独素B) | Not included in Pharmacopoeia. Highly toxic. | Lethal dose (mouse, LD50): 25.5g/kg weight | 黄药子，黄药，黄药根，苦药子，山慈姑，红药子 |
| 雷公藤 | Lei Gong Teng | *Tripterygium wilfordii Hook. f.* | Dried root, leaf, and flower | / | Terpenoids | Triptolide (雷公藤甲素), Celastrol (雷公藤红素), Triptonide (雷藤酮) | Removed from Pharmacopoeia. | Lethal dose: 2-3 fresh leaves, 7 sprouts, 30-60g bark of root | 震龙根，蒸龙草，莽草，水莽子，水莽兜，黄藤，断肠草 |
| 斑蝥 | Ban Mao | *Mylabris phalerata Pallas， Mylabris cichorii Linnaeus* | Dried body | H | Alkaloids | Cantharidin (斑蝥素) | 0.03~0.06g | Toxic dose: 1g， Lethal dose: 3g | 花斑蝥，花壳 |
| 蜈蚣 | Wu Gong | *Scolopendra subspinipes mutilans L. Koch* | Dried body | Med | Biotoxins | Centipede venom (Histone like substances, hemolytic proteins) | Decoction 2-5g, Powder 0.5-1g | Lethal dose: 4 dried centipedes in 2 days. | 蝍蛆，吴公，天龙，百脚，百足虫，千足虫 |
| 全蝎 | Quan Xie | *Buthus martensii Karsch* | Dried body | Med | Biotoxins | Buthotoxin (蝎毒素) | 3-6g | Toxic dose: 30g | 蝎子，全虫 |
| 蜂毒 | Feng Du | *Venom of worker bees including Apis cerana Fabr.* | Dried venom | / | Biotoxins | Melittin (蜂毒肽), Apamin (蜂毒明肽) | Not included in Pharmacopoeia. | Toxic dose: stinged by 200 bees in short-term. Lethal dose: stinged by 500 bees in short-term. | 蜜蜂毒素 |
| 蟾酥 | Chan Su | *As above* | Dried skin secretion | Med | Alkaloids | Cinobufagin (华蟾酥毒基), Bufalin (蟾毒灵), Bufotalin (蟾蜍他灵), Arenobufagin (沙蟾毒精) | 0.015-0.3g | Toxic dose: 5-10g | 蟾蜍眉酥，蟾蜍眉脂，癞蛤蚂浆，蛤蟆酥，蛤蟆浆 |
| 蟾皮 | Chan Pi | *Bufo bufo gargarizans Cantor， Bufo melanostictus Schneider* | Dried skin | / | Alkaloids | As above | Not included in Pharmacopoeia. | Lethal dose: 8g | 癞蟆皮，癞蛤蟆皮，蛤蚆皮 |
| 鲩鱼胆 | Run Yu Dan | *Ctenopharyngodon idellus* | Gall bladder | / |  | Cholic acid (胆酸), Cyanide (氰化物), Histamine (组胺） | Not included in Pharmacopoeia. | Lethal dose: 2.5g | 鱼胆 |
| 青鱼胆 | Qing Yu Dan | *Mylopharyngodon piceus (Richardson)* | Gall bladder | / |  | As above | Not included in Pharmacopoeia. | Lethal dose: 2.5g | 鱼胆 |
| 朱砂 | Zhu Sha | *Cinnabaris, HgS* | / | Med | Heavy metal | Mercury (汞) | 0.1~0.5g | Lethal dose: 5g, or 4.5g/d, over 1 month | 丹砂, 朱丹, 赤丹, 辰砂 |
| 轻粉 | Qing Fen | *Calomelas, Hg2Cl2* | / | Med | Heavy metal | Mercury (汞) | 0.1-0.2g | Toxic dose: 0.8-1.0g, Lethal dose: 2-5g | 汞粉, 甘汞, 峭粉, 水银粉 |
| 雄黄 | Xiong Huang | *Realgar, As2S2* | / | Med | Heavy metal | Arsenic (砷) | 0.05-0.1g | Toxic dose: 10mg, Lethal dose: 0.1-0.2g | 熏黄, 黄金石, 石黄 |
| 砒石 | Pi Shi | *Arsenolite， Arsenopyrite， Realgar, Orpiment* | / | / | Heavy metal | Arsenic trioxide (三氧化二砷) | Not included in Pharmacopoeia. | Toxic dose: 0.01g， Lethal dose: 0.1-0.2g | 砒黄, 信砒, 人言, 信石 |
| 铅丹 | Qian Dan | *Pb3O4* | / | / | Heavy metal | Lead (铅) | Not included in Pharmacopoeia | Toxic dose: 2-3g, Lethal dose: 25g | 黄丹, 铅丹, 朱丹 |
| 密陀僧 | Mi Tuo Seng | *Galena* | / | / | Heavy metal | Lead (铅) | Not included in Pharmacopoeia. | Toxic dose: 2-3g, accumulated to 9g | 陀僧，没多僧，炉底，银池，淡银，金炉底，银炉底，金陀僧 |
| *Toxicosis caused by overdose* | | |  |  |  |  |  |  |  |
| 北豆根 | Bei Dou Gen | *Menispermum dauricum DC.* | Dried rhizome | Mi | Alkaloids | Dauricine (蝙蝠葛碱) | 3-9g | Toxic dose: 15g | 蝙蝠葛根 |
| 吴茱萸 | Wu Zhu Yu | *Euodia rutaecarpa (Juss.) Benth.， Euodia rutaecarpa (Juss.) Benth. var. officinalis (Dode) Huang， Euodia rutaecarpa (Juss.) Benth. var. bodinieri (Dode) Huang* | Dried nearly mature fruit | Mi | Alkaloids | Evodiamine (吴茱萸碱), Rutecarpine (吴茱萸次碱) | 2-5g | Toxic dose: 15g for adults, 6g for child | 吴萸 |
| 八角莲 | Ba Jiao Lian | *Dysosma versipellis (Hance) M. Cheng ex Ying* | Dried rhizome | Mi | Lignans | Podophyllotoxin (鬼臼毒素) | 3-12g | Toxic dose (mouse, LD50): 0.493g/kg | 鬼臼, 独脚莲, 旱八角 |
| 鸦胆子 | Ya Dan Zi | *Brucea javanica(L.) Merr.* | Drid mature fruit | Mi | Quassin | Bruceantin (鸦胆苦醇) | 0.5~2g wrabbed in longan flesh or capsule | Toxic dose: 12 Bruceas | 老鸦胆, 苦参子 |
| 川楝子 | Chuan Lian Zi | *Melia toosendan Sieb.et Zucc.* | Dried mature fruit | Mi | Terpenoids | Toosendanin (川楝素), Meliacarpin (苦楝素) | 5-10g | Toxic dose: 30g for fried one, 6-8g for raw one. | 楝实, 楝子, 金铃子 |
| 水蛭 | Shui Zhi | *Whitmania pigra Whitman， Hirudo nipponica Whitman， Whitmania acranulata Whitman* | Dried body | Mi | Peptides | Hirudin (水蛭素) | 1-3g | Toxic dose: 15g | 蚂蝗 |
| 虎杖 | Hu Zhang | *Polygonum cuspidatum Sieb.et Zucc.* | Dried rhizome and root | No toxic warning | Anthraquinones | Aloe-emodin (芦荟大黄素), Emodin (大黄素), Rhein (大黄酸) | 9-15g | Allergen. Toxic dose: 60g | 阴阳莲 |
| 芦荟 | Lu Hui | *Aloe barbadensis Miller， Aloe ferox Miller* | Dried concentrate of leaves' juice | No toxic warning | Anthraquinones | Aloe-emodin (芦荟大黄素), Emodin (大黄素), Rhein (大黄酸) | 2-5g | Toxic dose: 9g. Cumulative toxicity, avoid long-term use. | 象胆 |
| 番泻叶 | Fan Xie Ye | *Cassia angustifolia Vahl, Cassia acutifolia Delile* | Dried small leaf | No toxic warning | Anthraquinones | Sennosides (番泻叶甙), Aloe-emodin (芦荟大黄素), Emodin (大黄素), Rhein (大黄酸) | 2-6g | Toxic dose (mouse, LD50): 36.6g/kg weight | 旃那叶，泻叶，泡竹叶 |
| 决明子 | Jue Ming Zi | *Cassia obtusifolia L., Cassia tora L.* | Dried mature seed | No toxic warning | Anthraquinones | Aloe-emodin (芦荟大黄素), Emodin (大黄素), Rhein (大黄酸) | 9-15g | Avoid long-term use and overdose. | 马蹄决明，钝叶决明，假绿豆，草决明 |
| 何首乌 | He Shou Wu | *Polygonum multiflorum Thunb.* | Dried root tuber | No toxic warning | Anthraquinones | Emodin (大黄素), Chrysophanol (大黄酚) | 10-20g | Toxic dose (mouse LD50): 50g/kg, especially for the raw one. Avoid long-term use and overdose | 首乌，地精，赤敛，陈知白，红内消，马肝石，疮帚，山奴，山哥，山伯，山翁，山精，夜交藤根，黄花污根，血娃娃，小独根，田猪头，铁称陀，赤首乌，山首乌，药首乌，何相公 |
| 大黄 | Da Huang | *Rheum palmatum L., Rheum tanguticum Maxim. ex Balf., Rheum officinale Baill.* | Dried root and rhizome | No toxic warning | Anthraquinones | Aloe-emodin (芦荟大黄素), Emodin (大黄素), Rhein (大黄酸) | 3-15g | Avoid long-term use and overdose. | 将军，黄良，火参，肤如 |
| 千里光 | Qian Li Guang | *Senecio scandens Buch.-Ham* | Dried above-ground part | No toxic warning | Alkaloids | Monocrotaline (野百合碱) | 10~15g, 20-30g for fresh one. | No data of the one in Chinese herbal medicine. | 千里急, 九里光 |
| 厚朴 | Hou Pu | *Magnolia officinalis Rehd.et Wils.， Magnolia officinalis Rehd.et Wils.var.biloba Rehd.et Wils.* | Dried bark of stem, branch, and root | No toxic warning | Alkaloids | Liriodenine (木兰箭毒碱) | 3-10g | Decoction safe at 60g/kg for mouse. Toxic dose (Liriodenine, mouse, LD50): 45.55mg/kg | 筒朴 |
| 益母草 | Yi Mu Cao | *Leonurus japonicus Houtt.* | Fresh or dried above-ground part | No toxic warning | Alkaloids | Leonurine (益母草碱), Stachydrine (水苏碱) | 9~30g， 12~40g for the fresh one | Toxic dose: 90g. 30g for seeds | 茺蔚 |
| 山慈菇 | Shan Ci Gu | *Cremastra appendiculata(D.Don)Makino, Pleione bulbocodioides（Franch.）Rolfe, Pleione yunnanensis Rolfe* | Dried pseudobulb | No toxic warning | Alkaloids | Colchicine (秋水仙碱) | 3~6g | Toxic dose: 15g | 慈姑, 毛慈姑, 冰球子 |
| 半边莲 | Ban Bian Lian | *Lobelia chinensis Lour.* | Dried whole plant | No toxic warning | Alkaloids | Lobeline (洛贝林/半边莲碱) |  | Toxic dose (rat): 75.1g/kg | 急解索，细米草，水仙花草 |
| 泽泻 | Ze Xie | *Alisma orientale (Sam.) Juzep.， Alisma plantago-aquatica Linn.* | Dried tuber | No toxic warning | Terpenoids | Alisol (泽泻醇) | 6~10g | Toxic dose: 30g. Avoid the fresh or raw one. | 水泽 |
| 穿心莲 | Chuan Xin Lian | *Andrographis Paniculata (Burm. F.) Nees* | Dried above-ground part | No toxic warning | Terpenoids | Andrographolide (穿心莲内酯) | 6-9g | Toxic dose (Andrographolide, mouse, LD50): >40g/kg | 榄核莲, 苦胆草 |
| 栀子 | Zhi Zi | *Gardenia jasminoides Ellis* | Dried mature fruit | No toxic warning | Terpenoids | Geniposide (栀子苷) | 6-10g | Toxic dose (rat): 300mg/kg \* 3 days | 木丹，鲜支，越桃，支子 |
| 威灵仙 | Wei Ling Xian | *Clematis chinensis Osbeck， Clematis hexapetala Pall.， Clematis manshurica Rupr.* | Dried root and rhizome | No toxic warning | Flavonoids, coumarins, and analogues | Anemonin (白头翁素)，白头翁醇 | 6-10g | Toxic dose: 50g. Allergy | 铁脚威灵仙, 灵仙 |
| 白头翁 | Bai Tou Weng | *Pulsatilla chinensis（Bge.）Regel* | Dried root | No toxic warning | Flavonoids, coumarins, and analogues | Anemonin (白头翁素)，白头翁醇 | 9-15g | Toxic dose: 30g | 野丈人，胡王使者，白头公 |
| 补骨脂 | Bu Gu Zhi | *Psoralea corylifolia L.* | Dried mature fruit | No toxic warning | Phenolic compounds | Bakuchiol (补骨脂酚), Psoralen (补骨脂素), 5-Methoxyps-oralen/Bergapten (佛手柑内酯/5-甲氧基补骨脂素) | 6~10g， tincture with concentrate of 20%~30% for external use | Toxic dose (raw one, mouse, LD50): 37.21g/kg | 婆固脂, 吉固子 |
| 丁香 | Ding Xiang | *Eugenia caryophyllata Thunb.* | Dried bud | No toxic warning | Phenolic compounds | Eugenol (丁香酚) | 1-3g | Toxic dose: 20g | 公丁香，丁子香 |
| 松节油 | Song Jie You | *Turpentine oil* | Distilled oleoresin | No toxic warning | Pinene | Alpha-pinene (α-蒎烯), Beta-pinene (β-蒎烯) | External use only | Lethal dose: 30mL |  |

**Supplementary Table 3. Evaluation of the DHerbKB recommendation system on supporting diet arrangement.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Case** | **Golden Standard** | | **DHerbKB Recommendation System** | | |
| **Proper or not?** | **Reasons** | | **Proper or not?** | **Reasons** |
| ***Diet 1 - for obesity*** | |  | |  |  |
| Case 1 | Yes |  | | Yes |  |
| Case 2 | No | Avoid broth; Energy: Insufficient Potassium: Excessive Sodium: Excessive | | No | Energy: Insufficient Potassium: Excessive Sodium: Excessive |
| Case 3 | No | Protein: Insufficient | | No | Protein: Insufficient |
| Case 4 | No | Protein: Insufficient | | No | Energy: Insufficient; Protein: Excessive; |
| Case 5 | No | Energy: Insufficient; Protein: Excessive; | | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive |
| Case 6 | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive; | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive |
| Case 7 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; | | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive |
| Case 8 | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive; | | No | Protein: Excessive; Phosphorus: Excessive |
| Case 9 | No | Protein: Excessive; Phosphorus: Excessive; | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 10 | No | Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 11 | No | Avoid broth;Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive; | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 12 | No | Avoid broth;Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 13 | No | Avoid broth; Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive; | | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 14 | No | Avoid broth; Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive; | | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive |
| Case 15 | No | Avoid broth; Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive; | | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 16 | No | Avoid broth; Protein: Insufficient; Phosphorus: Excessive; Potassium: Excessive; | | No | Protein: Insufficient; Phosphorus: Excessive; Potassium: Excessive |
| ***Diet 2 - for obesity*** | |  | |  |  |
| Case 1 | Yes |  | | Yes |  |
| Case 2 | No | Aavoid broth; Energy: Insufficient; Potassium: Excessive | | No | Energy: Insufficient; Potassium: Excessive |
| Case 3 | **Yes** |  | | **No** | **Protein: Insufficient** |
| Case 4 | No | Energy: Insufficient; Protein: Insufficient | | No | Energy: Insufficient; Protein: Insufficient |
| Case 5 | No | Aavoid broth; Protein: Excessive; Phosphorus: Excessive | | No | Protein: Excessive; Phosphorus: Excessive |
| Case 6 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive |
| Case 7 | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive |
| Case 8 | No | Protein: Excessive; Phosphorus: Excessive | | No | Protein: Excessive; Phosphorus: Excessive |
| Case 9 | No | Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 10 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 11 | No | Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 12 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 13 | No | Avoid broth; Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive |
| Case 14 | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive |
| Case 15 | No | Avoid broth; Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive |
| Case 16 | No | Protein: Insufficient; Phosphorus: Excessive; Potassium: Excessive | | No | Protein: Insufficient; Phosphorus: Excessive; Potassium: Excessive |
| ***Diet 3 - for obesity*** | |  | |  |  |
| Case 1 | No | Protein: Excessive; Sodium: Excessive | | No | Protein: Excessive; Sodium: Excessive |
| Case 2 | No | Aavoid broth; Energy: Insufficient; Protein: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 3 | **Yes** |  | | **No** | **Sodium: Excessive** |
| Case 4 | No | Energy: Insufficient; Protein: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Sodium: Excessive |
| Case 5 | No | Aavoid broth; Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive |
| Case 6 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive |
| Case 7 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 8 | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive |
| Case 9 | No | Aavoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 10 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 11 | No | Aavoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 12 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 13 | No | Aavoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 14 | No | Aavoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 15 | No | Aavoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 16 | No | Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| ***Diet 4 - for diabetes*** | |  | |  |  |
| Case 1 | No | Protein: Excessive | | No | Protein: Excessive |
| Case 2 | No | Avoid broth; Energy: Insufficient; Protein: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 3 | No | Protein: Excessive; ，应0.8-1.0g/kg/d | | No | Protein: Excessive |
| Case 4 | No | Protein: Excessive; ，应0.8-1.0g/kg/d | | No | Energy: Insufficient; Protein: Excessive |
| Case 5 | No | Avoid broth; Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive |
| Case 6 | No | Avoid star fruit; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive |
| Case 7 | No | Avoid star fruit; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 8 | No | Avoid star fruit; Protein: Excessive; Phosphorus: Excessive | | No | Protein: Excessive; Phosphorus: Excessive |
| Case 9 | No | Avoid star fruit; Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 10 | No | Avoid star fruit; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 11 | No | Avoid star fruit; Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 12 | No | Avoid star fruit; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 13 | No | Avoid star fruit; Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 14 | No | Avoid star fruit; Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 15 | No | Avoid star fruit; Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 16 | No | Avoid star fruit; Avoid broth; Phosphorus: Excessive; Potassium: Excessive | | No | Phosphorus: Excessive; Potassium: Excessive |
| ***Diet 5 - for diabetes*** | |  | |  |  |
| Case 1 | No | Protein: Excessive | | No | Protein: Excessive |
| Case 2 | No | Avoid broth; Energy: Insufficient; Protein: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 3 | No | Protein: Excessive | | No | Protein: Excessive |
| Case 4 | No | Energy: Insufficient; Protein: Excessive | | No | Energy: Insufficient; Protein: Excessive |
| Case 5 | No | Avoid broth; Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive |
| Case 6 | No | Protein: Excessive; Phosphorus: Excessive | | No | Protein: Excessive; Phosphorus: Excessive |
| Case 7 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 8 | No | Protein: Excessive; Phosphorus: Excessive | | No | Protein: Excessive; Phosphorus: Excessive |
| Case 9 | No | Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 10 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 11 | No | Avoid broth; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 12 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 13 | No | Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 14 | No | Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | |  | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 15 | No | Avoid broth; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | |  | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 16 | No | Avoid broth; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | |  | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| ***Diet 6 - for diabetes*** | |  | |  |  |
| Case 1 | No | Protein: Excessive | | No | Protein: Excessive |
| Case 2 | No | Avoid broth; Energy: Insufficient; Protein: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Potassium: Excessive |
| Case 3 | No | Protein: Excessive | | No | Protein: Excessive |
| Case 4 | No | Avoid broth; Energy: Excessive; Protein: Excessive | | No | Energy: Excessive; Protein: Excessive |
| Case 5 | No | Avoid broth; Protein: Excessive; Phosphorus: Excessive | | No | Protein: Excessive; Phosphorus: Excessive |
| Case 6 | No | Protein: Excessive; Phosphorus: Excessive | | No | Protein: Excessive; Phosphorus: Excessive |
| Case 7 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 8 | No | Protein: Excessive; Phosphorus: Excessive | | No | Protein: Excessive; Phosphorus: Excessive |
| Case 9 | No | Avoid broth; Energy: Excessive; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Excessive; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 10 | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 11 | No | Avoid broth; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 12 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 13 | No | Avoid broth; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 14 | No | Avoid broth; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 15 | No | Avoid broth; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 16 | No | Avoid broth; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| ***Diet 7 - for diabetes*** | |  | |  |  |
| Case 1 | No | Protein: Excessive; Sodium: Excessive | | No | Protein: Excessive; Sodium: Excessive |
| Case 2 | No | Avoid the liquid; Energy: Insufficient; Protein: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 3 | No | Protein: Excessive; Sodium: Excessive | | No | Protein: Excessive; Sodium: Excessive |
| Case 4 | No | Protein: Excessive; Sodium: Excessive | | No | Protein: Excessive; Sodium: Excessive |
| Case 5 | No | Avoid the liquid; Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive |
| Case 6 | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive |
| Case 7 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 8 | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive |
| Case 9 | No | Avoid the liquid; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 10 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 11 | No | Avoid the liquid; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 12 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 13 | No | Avoid the liquid; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 14 | No | Avoid the liquid; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 15 | No | Avoid the liquid; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 16 | No | Avoid the liquid; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| ***Diet 8 - Mediterranean diet for CVD prevention*** | | |  | |  |
| Case 1 | Yes |  | | Yes |  |
| Case 2 | No | Energy: Insufficient; Protein: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 3 | Yes |  | | Yes |  |
| Case 4 | No | Energy: Insufficient; Protein: Excessive | | No | Energy: Insufficient; Protein: Excessive |
| Case 5 | No | Avoid the liquid; Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Sodium: Excessive |
| Case 6 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive |
| Case 7 | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive |
| Case 8 | No | Protein: Excessive; Phosphorus: Excessive | | No | Protein: Excessive; Phosphorus: Excessive |
| Case 9 | No | Avoid the liquid; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 10 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 11 | No | Avoid the liquid; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 12 | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |
| Case 13 | No | Avoid the liquid; Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 14 | No | Avoid the liquid; Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive | | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive |
| Case 15 | No | Avoid the liquid; Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive | | No | Energy: Insufficient; Phosphorus: Excessive; Potassium: Excessive; Sodium: Excessive |
| Case 16 | No | Avoid the liquid; Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive | | No | Protein: Excessive; Phosphorus: Excessive; Potassium: Excessive |