Supplementary Materials

Safety Considerations for Natural Products with Adaptogenic and Immunomodulating Activities

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Table S1. Overview of clinical studies on single-herb and multi-herb products from the scoping review, arranged by natural product.

Natural product	Number of single-herb clinical studies (n)	Number of multi-herb clinical studies (n)	Total (n) and %
Curcuma longa L.	35	4	39 (11.5%)
Panax ginseng C.A. Meyer	24	1	25 (7.4%)
Zingiber officinale Roscoe	18	6	24 (7.1%)
Withania somnifera (L.) Dunal	18	4	22 (6.5%)
Viscum album L.	21	0	21 (6.2%)
Silybum marianum (L.) Gaertn.	16	5	21 (6.2%)
Pelargonium sidoides DC.	15	0	15 (4.4%)
Echinacea purpurea (L.) Moench	7	5	12 (3.5%)
Aloe vera (L.) Burm.f.	9	1	11 (3.2%)
Rhodiola rosea L.	8	1	9 (2.7%)
Artemisia annua L.	8	0	8 (2.4%)
Propolis from *Apis mellifera*	6	2	8 (2.4%)
Allium sativum L.	6	1	7 (2.1%)
Glycyrrhiza glabra L.	4	3	7 (2.1%)
Panax quinquefolius L.	6	1	7 (2.1%)
Phyllanthus emblica L.	4	3	7 (2.1%)
Salvia officinalis L.	6	1	7 (2.1%)
Astragalus membranaceus Moench	4	2	6 (1.8%)
Ganoderma lucidum (Curtis) P. Karst	5	1	6 (1.8%)
Camellia sinensis (L.) Kuntze	5	0	5 (1.5%)
Eleutherococcus senticosus (Rupr. & Maxim.) Maxim.	2	3	5 (1.5%)
Gynostemma pentaphyllum (Thunb.) Makino	4	1	5 (1.5%)
Lycium barbarum L.	5	0	5 (1.5%)
Lentinula edodes (Berk.) Pegl.	4	0	4 (1.2%)
Momordica charantia L.	4	0	4 (1.2%)
Terminalia chebula Retz.	2	2	4 (1.2%)
Antrodia cinnamomea	3	0	3 (0.9%)
Azadirachta indica A.Juss.	2	1	3 (0.9%)
Bacopa monnieri (L.) Wettst.	3	0	3 (0.9%)

Schisandra chinensis (Turcz.) Baill.	2	1	3 (0.9%)
Grifola frondosa (Dicks.) Gray	2	0	2 (0.6%)
Morinda citrifolia L.	2	0	2 (0.6%)
Uncaria guianensis (Aubl.) J.F.Gmel.	1	1	2 (0.6%)
Agaricus blazei Murrill (ABM)	1	0	1 (0.3%)
Andrographis paniculata (Burm.f.) Wall. ex Nees	9	2	1 (0.3%)
Aronia melanocarpa (Michx.) Elliott	1	0	1 (0.3%)
Berberis vulgaris L.	1	0	1 (0.3%)
Carica papaya L.	1	0	1 (0.3%)
Cordyceps cicadae	1	0	1 (0.3%)
Cordyceps militaris (L.) Fr.	1	0	1 (0.3%)
Echinacea angustifolia	1	0	1 (0.3%)
Hericium erinaceus (Bull.) Pers.	1	0	1 (0.3%)
Ophiocordyceps sinensis (Berk.) Sacc.	1	0	1 (0.3%)
Panax notoginseng (Burkill) F.H. Chen	1	0	1 (0.3%)
Pleurotus ostreatus (Jacq.Fr.) P. Kumm.	1	0	1 (0.3%)
Uncaria tomentosa (Willd. ex Schult.) DC.	1	0	1 (0.3%)

Table S2. Overview of case studies on single-herb products from the scoping review, arranged by natural product.

Natural Product	Number of Case Studies (n) and %
Glycyrrhiza glabra L.	15 (11.5%)
Camellia sinensis (L.) Kuntze	11 (8.5%)
Lentinula edodes (Berk.) Pegl.	11 (8.5%)
Panax ginseng C.A. Meyer	10 (7.7%)
Allium sativum L.	9 (6.9%)
Aloe vera(L.) Burm.f.	8 (6.2%)
Curcuma longa L.	8 (6.2%)
Viscum album L.	6 (4.6%)
Azadirachta indica A. Juss.	5 (3.8%)
Morinda citrifolia L.	5 (3.8%)
Echinacea purpurea (L.) Moench	3 (2.3%)
Lycium barbarum L.	3 (2.3%)
Uncaria tomentosa (Willd. ex Schult.) DC.	3 (2.3%)
Bacopa monnieri (L.) Wettst.	2 (1.5%)
Eleutherococcus senticosus (Rupr. & Maxim.) Maxim.	2 (1.5%)
Ganoderma lucidum (Curtis) P. Karst	2 (1.5%)
Inonotus obliquus (Ach. ex Pers.) Pilat.	2 (1.5%)
Tinospora crispa (L.) Hook.f. & Thomson	2 (1.5%)
Achyranthes bidentata Blume	1 (0.8%)
Agaricus blazei Murrill (ABM)	1 (0.8%)
Artemisia annua L.	1 (0.8%)
Astragalus membranaceus Moench	1 (0.8%)
Carica papaya L.	1 (0.8%)
Eriobotrya japonica (Thunb.) Lindl.	1 (0.8%)
Momordica charantia L.	1 (0.8%)
Ophiocordyceps sinensis (Berk.) Sacc.	1 (0.8%)
Panax notoginseng (Burkill) F.H. Chen	1 (0.8%)
Pelargonium sidoides DC.	1 (0.8%)
Pleurotus ostreatus (Jacq.Fr.) P. Kumm.	1 (0.8%)
Salvia officinalis L.	1 (0.8%)
Silybum marianum (L.) Gaertn.	1 (0.8%)
Total	130

Table S3. Overview of case studies on single-herb products from the scoping review, arranged by natural product.

Natural Product	Number of Reports (n) and %
Ganoderma lucidum (Curtis) P. Karst	1529 (19.4%)
Viscum album L.	1358 (17.3%)
Silybum marianum (L.) Gaertn.	1103 (14.0%)
Pelargonium sidoides DC.	749 (9.5%)
Andrographis paniculata (Burm.f.) Wall. ex Nees	545 (6.9%)
Rhodiola rosea L.	484 (6.1%)
Salvia miltiorrhiza Bunge	472 (6.0%
Curcuma longa L.	318 (4.0%)
Echinacea purpurea (L.) Moench	296 (3.8%)
Propolis from *Apis mellifera*	126 (1.6%)
Zingiber officinale Roscoe	111 (1.4%)
Panax ginseng C.A. Meyer	99 (1.3%)
Salvia officinalis L.	94 (1.2%)
Allium sativum L.	90 (1.1%)
Camellia sinensis (L.) Kuntze	78 (1.0%)
Aloe vera (L.) Burm.*f.*	73 (0.9%)
Panax quinquefolius L.	50 (0.6%)
Glycyrrhiza glabra L.	46 (0.6%)
Withania somnifera (L.) Dunal	39 (0.5%)
Morinda citrifolia L.	33 (0.4%)
Carica papaya L.	31 (0.4%)
Astragalus membranaceus Moench	29 (0.4%)
Eleutherococcus senticosus (Rupr. & Maxim.) Maxim.	20 (0.3%)
Schisandra chinensis (Turcz.) Baill.	16 (0.2%)
Lepidium meyenii Walp	13 (0.2%)
Azadirachta indica A. Juss.	12 (0.1%)
Artemisia annua L.	9 (0.1%)
Momordica charantia L.	7 (0.09%)
Panax notoginseng **(**Burkill) F.H. Chen	7 (0.09%)
Bacopa monnieri (L.) Wettst.	6 (0.08%)
Uncaria tomentosa (Willd. ex Schult.) DC.	4 (0.05%)
Hericium erinaceus (Bull.) Pers.	3 (0.04%)
Lentinula edodes (Berk.) Pegl.	3 (0.04%)
Lycium barbarum L.	3 (0.04%)
Ophiocordyceps sinensis (Berk.) Sacc.	3 (0.04%)
Berberis vulgaris L.	2 (0.03%)
Phyllanthus emblica L.	2 (0.03%)
Tinospora crispa (L.) Hook.f. & Thomson	2 (0.03%)
Cordyceps militaris (L.) Fr.	1 (0.01%)
Total	7866

Table S4. Overview of the top 15 most reported single-ingredient natural products for all reported adverse events, with the SOCs and their respective PTs.

Ganoderma lucidum (Curtis) P. Karst

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
General disorders and administration site conditions	846	Chills	391
		Chest pain	197
		Pyrexia	164
		Hyperpyrexia	94
Skin and subcutaneous tissue disorders	363	Pruritus	179
		Rash	123
		Erythema	31
		Hyperhidrosis	30
Gastrointestinal disorders	360	Nausea	192
		Vomiting	119
		Abdominal pain	36
		Abdominal comfort	13
Nervous system disorders	256	Dizziness	136
		Headache	53
		Tremor	34
		Hypoaestesia	33
Cardiac disorders	212	Palpitations	128
		Cardiac flutter	67
		Cardiac discomfort	10
		Arrhythmia	7

Viscum album L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
General disorders and administration site conditions	496	Injection site inflammation	284
		Pyrexia	92
		Influenza like illness	60
		Chills	50
Skin and subcutaneous tissue disorders	437	Pruritus	164
		Rash	106
		Urticaria	94
		Erythema	73
Gastrointestinal disorders	130	Nausea	59
		Diarrhoea	28
		Vomiting	24
		Abdominal pain	19
Nervous system disorders	116	Headache	53
		Dizziness	44
		Burning sensation	10
		Somnolence	9

Respiratory, thoracic and mediastinal disorders	67	Dyspnoea	40
		Bronchospasm	6
		Cough	6
		Asthma	5

Silybum marianum (L.) Gaertn.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	531	Diarrhoea	183
		Abdominal discomfort	147
		Nausea	142
		Abdominal pain	59
Skin and subcutaneous tissue disorders	293	Pruritus	121
		Rash	89
		Urticaria	67
		Hyperhidrosis	16
Nervous system disorders	96	Dizziness	48
		Headache	31
		Somnolence	11
		Dysgeusia	6
Respiratory, thoracic and mediastinal disorders	45	Dyspnoea	28
		Cough	4
		Epistaxis	4
		Dysphonia	3
General disorders and administration site conditions	43	Asthenia	11
		Pyrexia	9
		Malaise	9
		Face oedema	7

Pelargonium sidoides DC.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Skin and subcutaneous tissue disorders	228	Rash	82
		Pruritus	60
		Urticaria	56
		Erythema	30
Gastrointestinal disorders	213	Diarrhoea	74
		Nausea	55
		Vomiting	49
		Dyspepsia	35
Respiratory, thoracic and mediastinal disorders	111	Epistaxis	65
		Dyspnoea	25
		Cough	11
		Haemoptysis	5
Nervous system disorders	64	Dizziness	26
		Headache	20
		Somnolence	11
		Dysgeusia	7

Immune system disorders	44	Hypersensitivity	41
		Immune system disorder	1
		Anaphylactic reaction	1
		Anaphylactic shock	1

Andrographis paniculata (Burm.f.) Wall. ex Nees

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Skin and subcutaneous tissue disorders	327	Urticaria	98
		Rash	86
		Rash maculo-papular	83
		Angioedema	60
Immune system disorders	77	Anaphylactic reaction	51
		Anaphylactic shock	20
		Hypersensitivity	4
		Allergic oedema	1
Gastrointestinal disorders	46	Nausea	17
		Vomiting	13
		Lip swelling	8
		Oedema mouth	8
General disorders and administration site conitions	41	Face oedema	15
		Chest discomfort	12
		Chest pain	7
		Fatigue	7
Respiratory, thoracic and mediastinal disorders	32	Dyspnoea	18
		Cough	5
		Bronchospasm	2
		Respiratory distress	1

Rhodiola rosea L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Nervous system disorders	166	Headache	72
		Dizziness	42
		Somnolence	42
		Tremor	10
Psychiatric disorders	102	Insomnia	50
		Agitation	21
		Restlessness	17
		Anxiety	14
Gastrointestinal disorders	99	Nausea	59
		Diarrhoea	15
		Abdominal pain upper	14
		Vomiting	11
Cardiac disorders	60	Tachycardia	33
		Palpitations	20
		Arrhythmia	5
		Cardiovascular disorder	2

Injury, poisoning and procedural complications	59	Off label use	26
		Underdose	18
		Intentional underdose	8
		Intentional product use issue	7

Salvia miltiorrhiza Bunge

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	167	Nausea	63
		Diarrhoea	45
		Vomiting	30
		Abdominal pain	29
Skin and subcutaneous tissue disorders	161	Pruritus	73
		Rash	57
		Erythema	17
		Drug eruption	14
General disorders and administration site conditions	80	Chest pain	43
		Chills	19
		Pyrexia	10
		Hyperpyrexia	8
Nervous system disorders	50	Dizziness	34
		Headache	11
		Hypoaesthesia	3
		Head discomfort	2
Respiratory, thoracic and mediastinal disorders	48	Dyspnoea	31
		Tachypnoea	7
		Cough	6
		Suffocation feeling	4

Curcuma longa L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	155	Abdominal pain	50
		Nausea	43
		Diarrhoea	38
		Eructation	24
General disorders and administration site conditions	148	Fatigue	60
		Chest discomfort	46
		Therapeutic response decreased	3
		Pyrexia	9
Skin and subcutaneous tissue disorders	62	Pruritus	27
		Rash	21
		Urticaria	7
		Rash maculo-papular	7
Nervous system disorders	61	Headache	46
		Dizziness	5
		Somnolence	3
		Nervous system disorder	1

Respiratory, thoracic and mediastinal disorders	52	Dyspnoea	34
		Cough	17
		Bronchospasm	1

Echinacea purpurea (L.) Moench

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Skin and subcutaneous tissue disorders	91	Rash	30
		Urticaria	25
		Pruritus	23
		Rash erythematous	13
Gastrointestinal disorders	69	Nausea	24
		Diarrhoea	20
		Abdominal pain	14
		Vomiting	11
Nervous system disorders	39	Headache	10
		Dizziness	10
		Dysgeusia	5
		Somnolence	2
Respiratory, thoracic and mediastinal disorders	32	Dyspnoea	18
		Cough	8
		Throat tightness	3
		Throat irritation	3
General disorders and administration site conditions	24	Pyrexia	7
		Malaise	6
		Face oedema	6
		Chills	5

Propolis from *Apis mellifera*

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Skin and subcutaneous tissue disorders	51	Rash	20
		Pruritus	17
		Urticaria	7
		Erythema	6
Gastrointestinal disorders	34	Vomiting	14
		Nausea	14
		Abdominal pain	3
		Diarrhoea	3
Unknown	16	-	-
General disorders and administration site conditions	15	Face oedema	6
		Drug ineffective	3
		Malaise	2
		Swelling face	2
Respiratory, thoracic and mediastinal disorders	14	Dyspnoea	7
		Bronchospasm	4
		Throat irritation	2
		Pharyngeal oedema	1

Zingiber officinale Roscoe

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	40	Vomiting	15
		Nausea	10
		Abdominal pain	8
		Diarrhoea	7
Skin and subcutaneous tissue disorders	36	Rash	14
		Urticaria	9
		Pruritus	7
		Erythema	3
Nervous system disorders	23	Headache	7
		Somnolence	5
		Dizziness	3
		Tremor	2
General disorders and administration site conditions	19	Drug ineffective	4
		Unevaluable event	2
		Asthenia	1
		Swelling face	1
Renal and urinary disorders	11	Haematuria	2
		Bladder irritation	1
		Polyuria	1
		Pollakiuria	1

Panax ginseng C.A. Meyer

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	36	Diarrhoea	12
		Nausea	10
		Abdominal pain upper	5
		Abdominal pain	4
Nervous system disorders	25	Dizziness	14
		Headache	7
		Tremor	2
		Paraesthesia	2
Psychiatric disorders	18	Anxiety	3
		Nervousness	3
		Insomnia	3
		Restlessness	1
General disorders and administration site conditions	17	Fatigue	3
		Feeling hot	3
		Malaise	2
		Oedema peripheral	1
Skin and subcutaneous tissue disorders	14	Rash	5
		Urticaria	3
		Erythema	3
		Pruritus	3

Salvia officinalis L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	38	Vomiting	11
		Nausea	10
		Abdominal pain	8
		Diarrhoea	8
Skin and subcutaneous tissue disorders	22	Pruritus	6
		Erythema	4
		Rash	3
		Urticaria	3
Nervous system disorders	18	Dizziness	4
		Migraine	2
		Seizure	2
		Paraesthesia	2
General disorders and administration site conditions	16	Pain	4
		Asthenia	3
		Drug ineffective	3
		Fatigue	2
Injury, poisoning and procedural complications	11	Overdose	3
		Incorrect route of product administration	3
		Medication error	2
		Wrong product administered	1

Allium sativum L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	27	Dyspepsia	9
		Abdominal pain upper	8
		Nausea	5
		Diarrhoea	5
Skin and subcutaneous tissue disorders	17	Pruritus	6
		Rash	5
		Hyperhidrosis	2
		Erythema	2
General disorders and administration site conditions	16	Pain	4
		Peripheral swelling	3
		Malaise	3
		Asthenia	2
Nervous system disorders	14	Dizziness	5
		Hypoaesthesia	4
		Headache	3
		Burning sensation	2
Vascular disorders	8	Hypotension	3
		Vascular pain	1
		Peripheral coldness	1
		Flushing	1

Camellia sinensis (L.) Kuntze

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	28	Nausea	8
		Vomiting	6
		Abdominal pain	5
		Abdominal pain upper	3
Hepatobiliary disorders	23	Hepatitis	10
		Jaundice	5
		Hepatitis cholestatic	4
		Hepatitis acute	4
General disorders and administration site conditions	13	Fatigue	4
		Asthenia	2
		Oedema	2
		Malaise	1
Psychiatric disorders	13	Insomnia	3
		Agitation	2
		Nervousness	2
		Anxiety	1
Investigations	13	Tri-iodothyronine increased	2
		Liver function test abnormal	2
		Blood glucose increased	2
		Myoglobin blood present	1

Table S5. Overview of the top 15 most reported single-ingredient natural products for the serious adverse events; along with the SOCs and the respective PTs.

Ganoderma lucidum (Curtis) P. Karst

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
General disorders and administration site conditions	415	Chills	194
		Hyperpyrexia	83
		Pyrexia	81
		Chest pain	57
Skin and subcutaneous tissue disorders	105	Pruritus	42
		Rash	42
		Hyperhidrosis	12
		Erythema	9
Respiratory, thoracic and mediastinal disorders	87	Dyspnoea	59
		Tachypnoea	15
		Wheezing	5
		Cough	4
Gastrointestinal disorders	60	Nausea	25
		Vomiting	24
		Abdominal pain	3
		Diarrhoea	1
Immune system disorders	60	Anaphylactoid reaction	28
		Anaphylactic shock	27
		Anaphylactic reaction	4
		Hypersensitivity	1

Pelargonium sidoides DC.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Skin and subcutaneous tissue disorders	55	Rash	20
		Pruritus	17
		Erythema	9
		Urticaria	9
Respiratory, thoracic and mediastinal disorders	35	Dyspnoea	15
		Epistaxis	14
		Pharyngeal swelling	3
		Haemoptysis	3
Hepatobiliary disorders	32	Jaundice	11
		Drug-induced liver injury	7
		Hepatitis	5
		Liver disorder	3

Investigations	24	Transaminases increased	**7**
		Aspartate aminotransferase increased	3
		Gamma-glutamyltransferase increased	2
		Alanine aminotransferase abnormal	2
Gastrointestinal disorders	19	Abdominal pain upper	5
		Nausea	5
		Diarrhoea	5
		Vomiting	4

Salvia miltiorrhiza Bunge

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Skin and subcutaneous tissue disorders	73	Pruritus	29
		Rash	22
		Drug eruption	13
		Erythema	8
General disorders and administration site conditions	68	Chest pain	34
		Chills	18
		Pyrexia	8
		Hyperpyrexia	8
Respiratory, thoracic and mediastinal disorders	43	Dyspnoea	28
		Tachypnoea	7
		Suffocation feeling	4
		Cough	4
Vascular disorders	19	Flushing	10
		Cyanosis	5
		Pallor	2
		Peripheral coldness	1
Immune system disorders	15	Anaphylactic shock	6
		Anaphylactic reaction	5
		Anaphylactoid reaction	4

Andrographis paniculata (Burm.f.) Wall. ex Nees

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Immune system disorders	38	Anaphylactic reaction	30
		Anaphylactic shock	8
Skin and subcutaneous tissue disorders	31	Rash maculo-papular	12
		Urticaria	7
		Angioedema	7
		Rash	5
Gastrointestinal disorders	7	Abdominal pain	1
		Oedema mouth	1
		Nausea	1
		Diarrhoea	1

General disorders and administration site conditions	4	Face oedema	2
		Chest discomfort	2
Hepatobiliary disorders	3	Hepatitis cholestatic	1
		Liver injury	1
		Jaundice	1

Viscum album L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Skin and subcutaneous tissue disorders	29	Urticaria	12
		Pruritus	9
		Angioedema	4
		Erythema	4
General disorders and administration site conditions	25	Pyrexia	10
		Chills	7
		Injection site pain	3
		Fatigue	3
Immune system disorders	25	Anaphylactic reaction	12
		Hypersensitivity	6
		Anaphylactic shock	4
		Type I hypersensitivity	1
Respiratory, thoracic and mediastinal disorders	17	Dyspnoea	5
		Bronchospasm	3
		Respiratory distress	3
		Pulmonary embolism	1
Gastrointestinal disorders	10	Vomiting	3
		Nausea	3
		Swollen tongue	2
		Abdominal pain	2

Silybum marianum (L.) Gaertn.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	25	Nausea	10
		Diarrhoea	7
		Abdominal pain upper	5
		Vomiting	3
Nervous system disorders	18	Dizziness	8
		Headache	3
		Transient ischaemic attack	1
		Somnolence	1
Respiratory, thoracic and mediastinal disorders	17	Dyspnoea	8
		Cough	2
		Throat tightness	2
		Respiratory tract inflammation	1

General disorders and administration site conditions	17	Pyrexia	3
		Malaise	2
		Feeling hot	2
		Death	1
Skin and subcutaneous tissue disorders	16	Pruritus	5
		Hyperhidrosis	5
		Rash	3
		Angioedema	3

Astragalus membranaceus Moench

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
General disorders and administration site conditions	18	Chest pain	9
		Chills	7
		Pyrexia	4
		Chest discomfort	2
Respiratory, thoracic and mediastinal disorders	14	Dyspnoea	14
Cardiac disorders	5	Palpitations	5
Immune system disorders	4	Anaphylactoid reaction	2
		Anaphylactic reaction	1
		Anaphylactic shock	1
Psychiatric disorders	2	Tic	2
		Restlessness	1

Curcuma longa L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	7	Nausea	3
		Diarrhoea	3
		Abdominal pain	2
		Abdominal distension	1
General disorders and administration site conditions	5	Pyrexia	2
		Asthenia	1
		Gait disturbance	1
		Chest discomfort	1
Hepatobiliary disorders	5	Liver injury	1
		Acute hepatic failure	1
		Subacute hepatic failure	1
		Hepatitis cholestatic	1
Nervous system disorders	4	Headache	2
		Paraesthesia	1
		Clonus	1
		Dizziness	1

Skin and subcutaneous tissue disorders	4	Alopecia	2
		Nail disorder	1
		Pruritus	1
		Erythema	1

Salvia officinalis L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Skin and subcutaneous tissue disorders	17	Pruritus	4
		Erythema	4
		Alopecia	3
		Eczema	2
Gastrointestinal disorders	14	Nausea	3
		Oesophageal pain	3
		Abdominal discomfort	2
		Tongue movement disturbance	1
Nervous system disorders	12	Dizziness	2
		Loss of consciousness	2
		Hypoaesthesia	1
		Seizure	1
General disorders and administration site conditions	11	Condition aggravated	2
		Therapeutic response unexpected	2
		Pain	1
		Crying	1
Psychiatric disorders	8	Drug abuse	2
		Poor quality sleep	2
		Nightmare	2
		Restlessness	1

Panax quinquefolius L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Skin and subcutaneous tissue disorders	14	Urticaria	8
		Rash pruritic	2
		Pruritus	2
		Erythema	1
Respiratory, thoracic and mediastinal disorders	13	Dyspnoea	3
		Respiratory acidosis	2
		Cough	2
		Throat tightness	2
Gastrointestinal disorders	12	Abdominal pain	3
		Nausea	3
		Diarrhoea	2
		Vomiting	2

General disorders and administration site conditions	11	Chest pain	4
		Condition aggravated	2
		Generalised oedema	1
		Drug interaction	1
Investigations	10	Heart rate increased	3
		Electrocardiogram	3
		Blood pressure increased	2
		Blood test	2

Camellia sinensis (L.) Kuntze

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Hepatobiliary disorders	13	Hepatitis	3
		Hepatitis toxic	3
		Hepatitis acute	3
		Jaundice	2
Gastrointestinal disorders	4	Haemorrhoidal haemorrhage	1
		Constipation	1
		Haemorrhoids	1
		Dry mouth	1
Nervous system disorders	3	Headache	2
		Amnesia	1
		Dizziness	1
Vascular disorders	3	Hypertension	2
		Phlebitis superficial	1
Investigations	3	Transaminases increased	1
		Myoglobin blood present	1
		Blood creatine phosphokinase increased	1
		Liver function test abnormal	1

Echinacea purpurea (L.) Moench

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
General disorders and administration site conditions	7	Condition aggravated	2
		Oedema peripheral	1
		Therapeutic product ineffective	1
		Pyrexia	1
Skin and subcutaneous tissue disorders	6	Rash	3
		Rash pruritic	1
		Urticaria	1
		Stevens-Johnson syndrome	1
Nervous system disorders	5	Polyneuropathy	1
		Somnolence	1
		Seizure	1
		Idiopathic intracranial hypertension	1

Gastrointestinal disorders	5	Nausea	2
		Diarrhoea	2
		Oral mucosal blistering	1
		Tongue blistering	1
Hepatobiliary disorders	4	Hypertransaminasaemia	1
		Liver injury	1
		Jaundice	1
		Hepatitis	1

Withania somnifera (L.) Dunal

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	7	Vomiting	2
		Vomiting projectile	2
		Diarrhoea	2
		Nausea	1
Psychiatric disorders	5	Agitation	2
		Suicidal ideation	1
		Mood altered	1
		Irritability	1
General disorders and administration site conditions	4	Pyrexia	1
		Malaise	1
		Chest pain	1
		Crying	1
Cardiac disorders	3	Tachycardia	2
		Palpitations	2
Investigations	3	White blood cell count increased	1
		Eosinophil count increased	1
		C-reactive protein increased	1
		Aspartate aminotransferase increased	1

Aloe vera (L.) Burm.f.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Hepatobiliary disorders	5	Hepatotoxicity	2
		Jaundice	1
		Hypertransaminasaemia	1
		Hepatitis toxic	1
Skin and subcutaneous tissue disorders	3	Dermatitis	2
		Rash	1
		Pustular psoriasis	1
Renal and urinary disorders	2	Acute kidney injury	2

Musculoskeletal and connective tissue disorders	2	Arthritis reactive	1
		Arthralgia	1
General disorders and administration site conditions	2	Application site rash	1
		Pain	1
		Asthenia	1

Rhodiola rosea L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Nervous system disorders	6	Headache	3
		Dizziness	2
		Mental impairment	1
		Migraine	1
Psychiatric disorders	4	Agitation	2
		Anxiety	2
		Insomnia	1
		Binge eating	1
Investigations	2	Alanine aminotransferase increased	1
		Blood prolactin increased	1
		Aspartate aminotransferase increased	1
Cardiac disorders	2	Ventricular tachycardia	1
		Cardio-respiratory arrest	1
Immune system disorders	1	Anaphylactic reaction	1

Table S6. Overview of the reported multi-ingredient natural products involved in an ICSR as sole suspect.

Natural Product	Number of Reports (n)
Salvia miltiorrhiza Bunge	18623
Glycyrrhiza glabra L.	1853
Echinacea purpurea (L.) Moench	1536
Zingiber officinale Roscoe	1378
Panax ginseng C.A.Meyer	1253
Achyranthes bidentata Blume	988
Silybum marianum (L.) Gaertn.	980
Andrographis paniculata (Burm.f.) Wall. ex Nees	836
Terminalia chebula Retz.	528
Allium sativum L.	504
Echinacea angustifolia	490
Aloe vera(L.) Burm.f.	371
Viscum album L.	354
Eleutherococcus senticosus (Rupr. & Maxim.) Maxim.	294
Curcuma longa L.	261
Camellia sinensis (L.) Kuntze	231
Withania somnifera (L.) Dunal	193
Salvia officinalis L.	175
Azadirachta indica A. Juss	162
Pelargonium sidoides DC.	159
Berberis vulgaris L.	137
Schisandra chinensis (Turcz.) Baill.	108
Rhodiola rosea L.	79
Astragalus membranaceus Moench	64
Phyllanthus emblica L	52
Bacopa monnieri (L.) Wettst.	50
Propolis from *Apis mellifera*	41
*Panax notoginseng (*Burkill) F.H. Chen	26
Ganoderma lucidum (Curtis) P. Karst	25
Momordica charantia L.	22
Carica papaya L.	20
Hericium erinaceus (Bull.) Pers.	15
Lycium barbarum L.	12
Ophiocordyceps sinensis (Berk.) Sacc.	12
Morinda citrifolia L	9
Panax quinquefolius L	9
Lentinula edodes (Berk.) Pegl.	8
*Grifola frondosa (*Dicks.) Gray	3
Uncaria tomentosa (Willd. ex Schult.) DC.	3
Aronia melanocarpa (Michx.) Elliott	2
Artemisia annua L.	2
Pleurotus ostreatus (Jacq.Fr.) P. Kumm.	1

Table S7. Overview of the top 15 most reported multi-ingredient natural products with the SOCs and their respective PTs.

Salvia miltiorrhiza Bunge

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	3789	Nausea	2195
		Vomiting	1079
		Abdominal pain	267
		Abdominal discomfort	248
General disorders and administration site conditions	5647	Chest pain	2686
		Chills	1814
		Pyrexia	818
		Pain	329
Nervous system disorders	3942	Dizziness	2071
		Headache	1240
		Hypoaesthesia	327
		Head discomfort	286
Skin and subcutaneous tissue disorders	5043	Pruritus	2528
		Rash	1609
		Erythema	476
		Hyperhidrosis	430
Vascular disorders	2870	Phlebitis	1471
		Flushing	1156
		Pallor	138
		Phlebitis superficial	105

Echinacea purpurea (L.) Moench

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Skin and subcutaneous tissue disorders	591	Pruritus	212
		Rash	149
		Urticaria	145
		Erythema	85
Nervous system disorders	550	Ageusia	204
		Dysgeusia	193
		Dizziness	87
		Taste disorder	66
Gastrointestinal disorders	484	Nausea	181
		Vomiting	133
		Diarrhoea	115
		Abdominal pain	55
Immune system disorders	324	Hypersensitivity	164
		Anaphylactic reaction	148
		Anaphylactic shock	8
		Drug hypersensitivity	4

General disorders and administration site conditions	144	Malaise	48
		Swelling face	37
		Feeling hot	31
		Fatigue	28

Glycyrrhiza glabra L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	445	Nausea	144
		Vomiting	104
		Diarrhoea	102
		Abdominal pain upper	95
General disorders and administration site conditions	386	Drug ineffective	227
		No adverse event	78
		Malaise	48
		Fatigue	33
Skin and subcutaneous tissue disorders	370	Rash	130
		Pruritus	129
		Urticaria	71
		Erythema	40
Product issues	257	Product contamination physical	82
		Product taste abnormal	80
		Product quality issue	75
		Product physical consistency issue	20
Injury, poisoning and procedural complications	220	Poor quality product administered	128
		Off label use	46
		Incorrect dose administered	32
		Wrong technique in product usage process	14

Andrographis paniculata (Burm.f.) Wall. ex Nees

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Nervous system disorders	496	Ageusia	205
		Dysgeusia	191
		Taste disorder	67
		Headache	33
Skin and subcutaneous tissue disorders	414	Pruritus	146
		Urticaria	111
		Rash	97
		Erythema	60
Gastrointestinal disorders	303	Nausea	89
		Diarrhoea	87
		Vomiting	83
		Abdominal pain	44

Immune system disorders	300	Anaphylactic reaction	153
		Hypersensitivity	140
		Anaphylactic shock	3
		Type IV hypersensitivity reaction	2
General disorders and administration site conditions	111	Malaise	39
		Swelling face	26
		Fatigue	23
		Feeling hot	23

Zingiber officinale Roscoe

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Respiratory, thoracic and mediastinal disorders	331	Interstitial lung disease	246
		Lung disorder	45
		Dyspnoea	21
		Choking	19
Hepatobiliary disorders	236	Hepatic function abnormal	97
		Drug-induced liver injury	78
		Liver disorder	40
		Jaundice	21
Skin and subcutaneous tissue disorders	224	Pruritus	71
		Rash	70
		Urticaria	45
		Erythema	19
Gastrointestinal disorders	154	Dysphagia	56
		Vomiting	35
		Diarrhoea	34
		Nausea	29
General disorders and administration site conditions	92	Pain	24
		Swelling	23
		Pyrexia	23
		Malaise	11

Panax ginseng C.A. Meyer

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	274	Nausea	107
		Diarrhoea	67
		Vomiting	60
		Abdominal pain	40
Nervous system disorders	224	Headache	94
		Dizziness	88
		Somnolence	35
		Tremor	7

Respiratory, thoracic and mediastinal disorders	207	Interstitial lung disease	161
		Lung disorder	26
		Dyspnoea	13
		Cough	7
Hepatobiliary disorders	158	Hepatic function abnormal	75
		Drug-induced liver injury	43
		Liver disorder	27
		Jaundice	13
General disorders and administration site conditions	80	Fatigue	25
		Pyrexia	22
		Malaise	18
		Drug ineffective	15

Achyranthes bidentata Blume

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	448	Dyspepsia	306
		Nausea	72
		Constipation	39
		Gastritis	31
Nervous system disorders	142	Headache	65
		Dizziness	52
		Paraesthesia	15
		Somnolence	10
Infections and infestations	112	Nasopharyngitis	80
		Upper respiratory tract infection	12
		Cystitis	10
		Rhinitis	5
Skin and subcutaneous tissue disorders	97	Pruritus	45
		Urticaria	24
		Rash	20
		Erythema	4
General disorders and administration site conditions	89	Face oedema	30
		Oedema	27
		Oedema peripheral	18
		Chest pain	14

Silybum marianum (L.) Gaertn

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	364	Nausea	94
		Diarrhoea	78
		Vomiting	68
		Nausea	62

Skin and subcutaneous tissue disorders	187	Pruritus	73
		Rash	62
		Urticaria	26
		Erythema	26
General disorders and administration site conditions	118	Drug ineffective	53
		Malaise	27
		Fatigue	21
		Discomfort	17
Investigations	80	Liver function test increased	30
		Hepatic enzyme increased	21
		Gamma-glutamyltransferase increased	16
		Alanine aminotransferase increased	13
Hepatobiliary disorders	62	Jaundice	21
		Drug-induced liver injury	15
		Liver disorder	13
		Hepatitis	13

Terminalia chebula Retz.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
General disorders and administration site conditions	254	Drug ineffective	143
		No adverse event	77
		Malaise	18
		Therapeutic product effect decreased	16
Product issues	227	Product contamination physical	81
		Product quality issue	69
		Product taste abnormal	61
		Product physical consistency issue	16
Injury, poisoning and procedural complications	178	Poor quality product administered	124
		Off label use	39
		Wrong technique in product usage process	10
		Product use complaint	5
Gastrointestinal disorders	82	Abdominal pain upper	24
		Diarrhoea	22
		Nausea	20
		Constipation	16
Nervous system disorders	62	Dizziness	27
		Paraesthesia	17
		Headache	13
		Head discomfort	5

Viscum album L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
General disorders and administration site conditions	298	Pyrexia	143
		Local reaction	77
		Chills	18
		Pain	16
Gastrointestinal disorders	63	Abdominal discomfort	24
		Nausea	14
		Diarrhoea	13
		Vomiting	12
Skin and subcutaneous tissue disorders	42	Pruritus	16
		Urticaria	12
		Rash	10
		Blister	4
Nervous system disorders	28	Dizziness	10
		Burning sensation	7
		Headache	5
		Seizure	3
Respiratory, thoracic and mediastinal disorders	24	Dyspnoea	12
		Epistaxis	4
		Cough	4
		Nasal congestion	2

Echinacea angustifolia

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	152	Nausea	77
		Vomiting	45
		Diarrhoea	18
		Dry mouth	12
Skin and subcutaneous tissue disorders	115	Pruritus	44
		Rash	26
		Urticaria	23
		Erythema	22
Nervous system disorders	84	Dizziness	46
		Headache	21
		Somnolence	5
		Seizure	4
General disorders and administration site conditions	67	Pain	19
		Condition aggravated	12
		Application site pain	9
		Malaise	9
Musculoskeletal and connective tissue disorders	27	Osteoarthritis	11
		Arthralgia	8
		Pain in extremity	4
		Myalgia	4

Allium sativum L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	175	Abdominal discomfort	57
		Nausea	52
		Dyspepsia	37
		Diarrhoea	29
Skin and subcutaneous tissue disorders	120	Pruritus	47
		Urticaria	35
		Rash	33
		Alopecia	5
Nervous system disorders	41	Dizziness	22
		Headache	12
		Somnolence	4
		Dysgeusia	3
General disorders and administration site conditions	31	Malaise	7
		Pain	6
		Oedema peripheral	6
		Face oedema	6
Cardiac disorders	18	Palpitations	12
		Tachycardia	2
		Cardiogenic shock	1
		Atrial flutter	1

Aloe vera (L.) Burm.f.

System Organ Class (SOC)	Frequency (n) and %	Preferred term (PT)	Frequency (n) and %
Skin and subcutaneous tissue disorders	122	Pruritus	44
		Rash	36
		Erythema	25
		Acne	17
General disorders and administration site conditions	66	Drug ineffective	20
		Therapeutic response unexpected	19
		Death	16
		Fatigue	11
Gastrointestinal disorders	47	Nausea	16
		Vomiting	12
		Abdominal pain	12
		Diarrhoea	7
Injury, poisoning and procedural complications	24	Off label use	10
		Poor quality product administered	5
		Fall	5
		Hip fracture	4

Nervous system disorders	23	Dizziness	7
		Headache	6
		Loss of consciousness	5
		Cerebrovascular accident	5

Eleutherococcus senticosus (Rupr. & Maxim.) Maxim.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	111	Nausea	37
		Vomiting	31
		Diarrhoea	27
		Dyspepsia	16
Skin and subcutaneous tissue disorders	59	Pruritus	21
		Urticaria	18
		Rash	13
		Erythema	7
Nervous system disorders	46	Dizziness	25
		Headache	12
		Lethargy	5
		Burning sensation	4
General disorders and administration site conditions	37	Face oedema	9
		Fatigue	7
		Pyrexia	6
		Malaise	5
Psychiatric disorders	17	Insomnia	9
		Agitation	2
		Depression	2
		Anxiety	2

Curcuma longa L.

System Organ Class (SOC)	Frequency (n)	Preferred term (PT)	Frequency (n)
Gastrointestinal disorders	122	Pruritus	44
		Rash	36
		Erythema	25
		Acne	17
Skin and subcutaneous tissue disorders	66	Drug ineffective	20
		Therapeutic response unexpected	19
		Death	16
		Fatigue	11
Nervous system disorders	47	Nausea	16
		Vomiting	12
		Abdominal pain	12
		Diarrhoea	7

General disorders and administration site conditions	24	Off label use	10
		Poor quality product administered	5
		Fall	5
		Hip fracture	4
Investigations	23	Dizziness	7
		Headache	6
		Loss of consciousness	5
		Cerebrovascular accident	5

Table S8. Search strategy applied to the scoping review in PubMed.

Search strategy of each specific species:

#1: ("Rhodiola"[Mesh] OR "rhodiola rosea"[tiab] OR "golden root"[tiab] OR "Withania"[Mesh] OR "withania somnifera"[tiab] OR Ashwagandha[tiab] OR "Eleutherococcus"[Mesh] OR "siberian ginseng"[tiab] OR "Acanthopanax senticosus"[tiab] OR "Eleutherococcus senticosus"[tiab] OR "Panax"[Mesh] OR "panax ginseng"[tiab] OR ginseng*[tiab] OR "Panax quinquefolius L."[tiab] OR "Panax pseudoginseng"[tiab] OR "Schisandra"[Mesh] OR "schisandra chinensis" [tiab] OR schisandra[tiab] OR "Astragalus propinquus"[Mesh] OR "astragalus membranaceus"[tiab] OR astragalus[tiab] OR "Curcuma"[Mesh] OR turmeric[tiab] OR "curcuma longa"[tiab] OR zingiberaceae [tiab] OR "Leuzea"[Mesh] OR "Rhaponticum carthamoides"[tiab] OR "Ocimum sanctum"[Mesh] OR "ocimum sanctum"[tiab] OR "Codonopsis"[Mesh] OR dangshen[tiab] OR "codonopsis pilosula"[tiab] OR "Tinospora"[Mesh] OR "Tinospora cordifolia"[tiab] OR "Bacopa"[Mesh] OR "bacopa monnieri"[tiab] OR "Phyllanthus emblica"[Mesh] OR "phyllanthus emblica"[tiab] OR "emblica officinalis"[tiab] OR "Glycyrrhiza"[Mesh] OR "glycyrrhiza glabra"[tiab] OR licorice[tiab] OR "asparagus racemosus"[tiab] OR "shatavari"[tiab] OR "Panax notoginseng"[Mesh] OR "panax notoginseng"[tiab] OR "Agaricus blazei" [Supplementary Concept] OR "agaricus blazei"[tiab] OR "Reishi"[Mesh] OR "lingzhi"[tiab] OR "ganoderma lucidum"[tiab] OR "Cordyceps"[Mesh] OR "cordyceps sinensis"[tiab] OR "cordyceps militaris"[tiab] OR "Trametes"[Mesh] OR "Trametes versicolor"[tiab] OR "turkey tail"[tiab] OR "Grifola"[Mesh] OR "grifola frondosa"[tiab] OR "Inonotus"[Mesh] OR "inonotus obliquus"[tiab] OR "chaga"[tiab] OR "Hericium"[Mesh] OR "hericium erinaceus"[tiab] OR "lion’s mane"[tiab] OR "Shiitake Mushrooms"[Mesh] OR "lentinula edodes"[tiab] OR shiitake[tiab] OR "Lepidium"[Mesh] OR "lepidium meyenii"[tiab] OR "lepidium peruvianum"[tiab] OR "Silybum marianum"[Mesh] OR "milk thistle"[tiab] OR "silybum marianum"[tiab] OR "Echinacea"[Mesh] OR "Echinacea purpurea"[tiab] OR "Garlic"[Mesh] OR garlic[tiab] OR "allium sativum"[tiab] OR "Zingiber officinale"[Mesh] OR ginger[tiab] OR "zingiber officinale"[tiab] OR "Cat's Claw"[Mesh] OR "uncaria tomentosa"[tiab] OR "cat’s claw"[tiab] OR "Aloe"[Mesh] OR "aloe vera"[tiab] OR "Andrographis paniculata"[Mesh] OR "chirata"[tiab] OR "andrographis paniculata"[tiab] OR "Camellia sinensis"[Mesh] OR "camellia sinensis"[tiab] OR "Azadirachta"[Mesh] OR "azadirachta indica"[tiab] OR "neem"[tiab] OR "Pleurotus"[Mesh] OR "pleurotus ostreatus"[tiab] OR "oyster mushroom"[tiab] OR "Terminalia"[Mesh] OR "Terminalia chebula"[tiab] OR "Haritaki"[tiab] OR "Pfaffia paniculata"[tiab] OR "Piper longum"[tiab] OR "dioscorea polystachya"[tiab] OR "Artemisia annua"[Mesh] OR "artemisia annua"[tiab] OR "sweet wormwood"[tiab] OR "Lithospermum"[Mesh] OR "lithospermum erythrorhizon"[tiab] OR "Lycium"[Mesh] OR "goji berry"[tiab] OR "lycium barbarum"[tiab] OR "Eriobotrya"[Mesh] OR "Eriobotrya japonica"[tiab] OR "loquat"[tiab] OR "Berberis"[Mesh] OR "barberry"[tiab] or "berberis vulgaris"[tiab] OR "Achyranthes"[Mesh] OR "achyranthes bidentata"[tiab] OR "Carica"[Mesh] OR "carica papaya"[tiab] OR "papaya"[tiab] OR "Morinda"[Mesh] OR "morinda citrifolia"[tiab] OR "Chromolaena"[Mesh] OR "chromolaena odorata"[tiab] OR "Spatholobus suberectus"[tiab] OR "Quillaja"[Mesh] OR "quillaja saponaria"[tiab] OR "dimocarpus longan"[tiab] OR "longan"[tiab] OR "Salvia officinalis"[Mesh] OR "salvia officinalis"[tiab] OR

"sage plants"[tiab] OR "Origanum"[Mesh] OR "oregano"[tiab] OR "origanum vulgare"[tiab] OR "Moringa oleifera"[Mesh] OR "moringa oleifera"[tiab] OR "Gynostemma"[Mesh] OR "gynostemma pentaphyllum*"[tiab] OR "Momordica charantia"[Mesh] OR "momordica charantia"[tiab] OR "bitter gourd"[tiab] OR "Orthosiphon"[Mesh] OR "orthosiphon stamineus"[tiab] OR "rhizoma gastrodiae"[tiab] OR "tian ma"[tiab] OR "Chenopodium quinoa"[Mesh] OR "chenopodium quinoa"[tiab] OR "quinoa*"[tiab] OR "Photinia"[Mesh] OR "aronia melanocarpa"[tiab] OR "black chokeberry"[tiab] OR "Antrodia"[Mesh] OR "antrodia cinnamomea"[tiab] OR "Pelargonium"[Mesh] OR "pelargonium sidoides"[tiab] OR "Viscum album"[Mesh] OR "viscum album"[tiab] OR "mistletoe"[tiab] OR "Propolis"[Mesh] OR "Propolis"[tiab] OR "Schizophyllum"[Mesh] OR "schizophyllum commune"[tiab])

#2: ("Drug-Related Side Effects and Adverse Reactions"[Mesh] OR "safe*"[tiab] OR "side effect*" [tiab] OR "adverse drug reaction*"[tiab] OR adr[tiab] OR "adverse reaction*"[tiab] OR "adverse drug reaction*"[tiab] OR "adverse event*"[tiab] OR "undesirable effect*" [tiab] OR "risk*"[tiab] OR "tolerability"[tiab] OR "toxic*"[tiab] OR "adverse effect*"[tiab])

#1 AND #2

Filter: case reports, clinical trials, randomized controlled trials and humans

Search strategy with general terms:

#1: ("Adaptation, Physiological"[Mesh] OR "Stress, Physiological"[Mesh] OR adaptogen*[tiab] OR "Adjuvants, Immunologic"[Mesh] OR "Immunologic Factors"[Mesh] OR immunomodulatory[tiab] OR immunomodulator*[tiab] OR immunomodulation[tiab] OR immunomodulate[tiab])

#2: ("Phytotherapy"[Mesh] OR "herbal products"[tiab] OR "plant extract*"[tiab] OR "herbal medicine*" [tiab] OR "Plants, Medicinal"[Mesh] OR "Herbal Medicine"[Mesh] OR "Plant Extracts"[Mesh] OR "Fungi"[Mesh] OR "Fungi"[tiab] OR "fungal"[tiab])

#3: ("Drug-Related Side Effects and Adverse Reactions"[Mesh] OR "safe*"[tiab] OR "side effect*" [tiab] OR "adverse drug reaction*"[tiab] OR adr[tiab] OR "adverse reaction*"[tiab] OR "adverse drug reaction*"[tiab] OR "adverse event*"[tiab] OR "undesirable effect*" [tiab] OR "risk*"[tiab] OR "tolerability"[tiab] OR "toxic*"[tiab] OR "adverse effect*"[tiab])

#1 AND #2 # AND #3

Filter: case reports, clinical trials, randomized controlled trials and humans.