

Ongoing Research Projects 2024-25

Sr. No	Department	Name of the Student	Title of the Topic	Guide
1	Samhita Siddhant & Sanskrit	Vd. Siddhi Kiran Purohit	Development of Assessment Criteria for Ruksha, Khara and Parusha Gunas-An experimental study	Dr. Yogita Jamdade
2	Samhita Siddhant & Sanskrit	Dr. Jayhind Ramling Choudhari	“ A literary study of Vicharana Sneha mentioned in bhruhtrayee with the survey on the use of Vicharana Sneha for shodhna in ayurvedic practitioners.”	Dr. Sangita More
3	Samhita Siddhant & Sanskrit	Dr. Divyashree K.S	Development and Validation of Assessment criteria for Ruksha, Khara, Parusha and Kathina Guna	Dr. Yogita Jamdade
4	Rachana Sharir	Dr. Borkute Snehal Narayan	An observational study of anatomical involvement and changes in asthi majjagat vata of vankshan sandhi using MRI scan of hip joint	Dr P. B. Tople
5	Rachana Sharir	Dr. Pinge Ashwini Ramkrushna	A cross sectional study to find structural involvement and changes in hrudaya in patients of pittaj hrudroga using 2D echocardiography	Dr. D. B. Naik
6	Rachana Sharir	Dr. Mahale Hemant Bhatu	A cross sectional study to find structural involvement and changes of kidneys, ureters and bladder(KUB) in patient of vataj mutrashmari with the help of sonography scan	Dr. D. B. Naik
7	Rachana Sharir	Dr. Raut Gaurav Santoshrao	A cross sectional study to find structural involvement and changes in upper Gastronintestinal tract of patients having vataj parinamschool by using oesophago-gastro-duodenoscopy	Dr. M. A. Mahadar
8	Rachana Sharir	Dr. Rahangdale Prachi Dashendra	A cross sectional study of anatomical involvement and changes in lumbo-sacral spine in patients of vata-kaphaja gridhrasi using lumbo-sacral MRI-scan(Magnetic Resonance Imaging)	Dr. M. A. Mahadar
9	Rachana Sharir	Dr. Chaudhari Gaurav Uttamrao	A cross sectional study to find stuctural involvement and changes in the abdomen of patients having Dakodara with the help of CT scan	Dr. M. M. Bhanage
10	Rachana Sharir	Dr.Jogdand Mahesh	A cross sectional study to find structural. involvement and changes in upper gastro-intestinal tract of patients having kaphaj parinamashoola by using oesophago-gastro-duodenoscopy	Dr P. B. Tople
11	Rachana Sharir	Dr.Patre Snehal	A cross sectional study to find structural involvement and changes in the thorax of patient having kshatksheena using HRCT thorax.	Dr. D. B. Naik

12	Kriya Sharir	Dr. Kare Bhagyesh Dadasaheb	A cross sectional analytical study to find relation between Rasasarata and Palitya in 18-30 age group individuals.	Dr.S.Chobhe
13	Kriya Sharir	Dr. Lanjewar Puja Ishwar	A cross sectional analytical study to find relation between Rasavaha Strotas Dushti Lakshana and anxiety in working women of age group 25-50yrs.	Dr.S.Chobhe
14	Kriya Sharir	Dr. Khedkar Aarti Sheshrao	“An observational study to find relation between status of Rasasarta and Panduta with special reference to Haemoglobin percentage in females of age group 18 to 45 years.	Dr. S. V. More
15	Kriya Sharir	Dr. Kudale Anuja Dada	An observational study to find relation between Rasa sarta and Anxiety in higher secondary students	Dr. S. V. More
16	Kriya Sharir	Dr. Badhe Jayshri Vithoba	“A Cross sectional analytical study to Assess Bala karma of Udan	Dr. S. C. Chaudhari
17	Kriya Sharir	Dr. Dahake Apurva Tejrao	Vayu in Cigarette smokers with the help of Harvard step test”	Dr. V. B. Nyahalse
18	Kriya Sharir	Dr. Dagdu Ashwini Sunil	An observational study to find relation between Menopausal symptoms and different Deha prakriti in Perimenopause stage (age 40-50 years)	Dr.S.Chobhe
19	Kriya Sharir	Dr. Joshi Ira Ashutosh	An observational study to assess Sushrutokta mental attributes (satva , raja ,tama) in students of age 18-30 years with special reference to Emotional Quotient.	Dr.S.Chobhe
20	Kriya Sharir	Dr. Madkam Manvi Laxmikant	An observational study to find relation between Manas Prakriti and Emotional Intelligence of Healthy individuals of 18-30 years’ age group.	Dr.S.Chobhe
21	Kriya Sharir	Dr. Bharkade Vidya Rangnath	A comparative assessment of Mamsasarta in non-vegetarian and vegetarian individuals of age group 31-60 year with special reference to muscle strength- a cross sectional analytical study.	Dr. S. V. More
22	Kriya Sharir	Dr. Bharule Manas Vitthal	An Assessment of Sarata in Military Personnel of Age Group 18 to 50 years: A Cross Sectional Study	Dr. S. V. More
23	Kriya Sharir	Dr. Jaiswal Rachna Vipul	An observational study to find relation between Rasavaha strotodushti due to stress and different Deha prakriti in exam appearing Ayurveda students	Dr. S. C. Chaudhari
24	Kriya Sharir	Dr.Purva Bharde	An observational study of status of Meda Dhatu in sedentary job workers with special reference to different Dehaprakruti	Dr. S. K. Chobhe
25	Kriya Sharir	Dr. Ujjwala More	A Study on efficacy of Nadishodhan Pranayam in improving Shwasana Kriya in known case of Asthma patients.	Dr. S. K. Chobhe
26	Kriya Sharir	Dr. Supriya Tonge	Clinical study of Khajura on heamoglobinpercentage with special reference to Sushruta’s Rakta Dhatu Poshankaala.	Dr. S. K. Chobhe

27	Kriya Sharir	Dr.Nagarale Vijaya Rahul	Comparative assessment of Memory in Type II diabetes mellitus patients and nondiabetic individuals with special reference to the effect of Goghrita Pratimarsha Nasya.	Dr. S. K. Chobhe
28	Kriya Sharir	Dr.Yadav Shilpa	Role of satve Bala in assessment of effect of Ashwagandha in Cancer patients with special reference to their mental health.	Dr. S. K. Chobhe
29	Kriya Sharir	Dr.Bhargav Reshma	Assessment of Meda Dhatu in Type II diabetes mellitus patients: A cross sectional study.	Dr. S. K. Chobhe
30	Dravyaguna	Dr. Shital Rajmane	"Encapsulation of Wight & Arn. essential oil in chitosan nanoparticles and its antimicrobial study"	Dr. Meenal D. Lad
31	Dravyaguna	Dr. Bhakti Mane	"Experimental study of the Cardioprotective activity of Baccaurea courtallensis Muell. Arg. (fruit juice) as a source of Prachinaamalaka against Doxorubicin-induced Cardiotoxicity in Rats."	Dr. Ila Bhor
32	Rachana Sharir	Dr.Donadkar Shivnandan	A cross sectional analytical study to find anatomical changes of lumbo-sacral spine in patients of katishoola with and without prameha by using lumbo-sacral Magnetic Resonance Imaging.	Dr. D. B. Naik
33	Rachana Sharir	Dr.Dhole Vaishnavi	A cross sectional study to find structural involvement and changes in ears in patients of "Putikarna" using High-Resolution Computed Tomography(HRCT) of Temporal Bone.	Dr. M. A. Mahadar
34	Rachana Sharir	Dr.Girhe Pravin	A cross sectional study to find structural involvement and changes in Heart in patients of Kaphaj Hrudroga using 2D echocardiography.	Dr. M. A. Mahadar
35	Rachana Sharir	Dr.Bagul Damini	A cross sectional analytical study to find structural involvement and changes of Lumbo-sacral spine in sedentary and non-sedentary workers suffering from Katigraha by using MRI(Magnetic Resonance Imaging) scan.	Dr M. M. Bhanage
36	Rasashastra and Bhaishajya Kalpana	Dr. Sapana B. Bhakare	A Pharmaceutico- Analytical Study Of Kharjuradi Mantha & Its Conversion Into Kharjuradi Syrup With Special Reference to Sharangadhar Samhita.	Dr. Sharada Chikurte
37	Rasashastra and Bhaishajya Kalpana	Dr Renuka Gunijan Paliwal	A Pharmaceutico-Analytical study of Jatipatradi kwatha and its conversion into Jatipatradi gel with special reference to chakradatta	Dr. Sharada Chikurte
38	Rasashastra and Bhaishajya Kalpana	Dr. Diwani Hemali Hemant	Pharmaceutico-analytical study of MadhuPipalli Yoga mentioned in Bhaishajya Ratnavali converted into lozenges by different trials	Dr. Rajendra Mane
39	Rasashastra and Bhaishajya Kalpana	Dr. Girija Dadasaheb Kadam	Pharmaceutico- analytical study of Shirishadi dhoop stick and its antimicrobial effect against staphylococcus aureus with special reference to Gada nigraha.	Dr. Rajendra Mane

40	Rasashastra and Bhaishajya Kalpana	Dr. Pranoti Arjun Kamble	A Pharmaceutico- Analytical Study Of Asthisamharaka Taila & Its Conversion Into Asthisamharaka Cream With Special Reference to Vangasena Samhita	Dr. Pravin Tate
41	Rasashastra and Bhaishajya Kalpana	Dr. Minal Sudhakar Deshmukh	Pharmaceutico Analytical Study Of Bibhitakavleha & it's Conversion Into Bibhitaka Granules With Special Refrence to Gadanigraha.	Dr. Pravin Tate
42	Rognidan & Vikrutividnyan	Dr Pranay Sayar	A Cross-Sectional Study To Find The Role Of Rasavaha Strotas Dushti Hetu In Patients Of Palitya	Dr. R.R. Patil
43	Rognidan & Vikrutividnyan	Dr Ashish Gaikwad	A Cross-Sectional Study to Assess The Etiological Factors of Kledavruddhi in Type-2 Diabetes Mellitus	Dr. R.R. Patil
44	Rognidan & Vikrutividnyan	Dr Atul Thorkar	A cross-sectional study to assess medovaha strotodusti hetu in Patients of non-alcoholic fatty liver disease (NAFLD)	Dr. R.H. Mhaske
45	Rognidan & Vikrutividnyan	Dr Komal Gawande	A cross sectional study to assess atilavan rasa as a causative factor in Khalitya among male patients by hamilton norwood scale	Dr. R.H. Mhaske
46	Rognidan & Vikrutividnyan	Dr Shreya Thotange	A Cross-Sectional study to evaluate Meda Alpata in patients of Pandu with special reference to serum total cholesterol and Body Mass Index (BMI)	Dr. S.R. Singh
47	Rognidan & Vikrutividnyan	Dr Shruti Naigave	A Cross-Sectional Study to evaluate predominant Doshaja type of Mutrakricchra among menopausal females diagnosed with Urinary Tract Infection	Dr. S.R. Singh
48	Agadtantra	Vd. Ashwini Ghuge	"In Vivo Study Of Hepatoprotective Efficacy Of <i>Haridradi Ghrut</i> In Cyclophosphamide Induced Liver Toxicity In Wistar Rats."	Dr J J Phadke
49	Agadtantra	Vd. Poonam Parshuram Jadhav	"Cross-sectional study on knowledge and awareness of organ donation and transplantation of human organs and tissues act,1994 among undergraduate ayurveda students of our institute."	Dr J J Phadke
50	Agadtantra	Vd. Prerana Salvi	An Exploratory Clinical Study To Evaluate The Efficacy Of Sevyadi Yog Lepa In Management Of Contact Dermatitis Caused By Topical Use Of Cosmetics In The Age Group Of 18-50 Years.	Dr Vaibhav Patil
51	Agadtantra	Vd. Shivani Khatik	Cross-sectional study for assessment of knowledge and awareness of medicolegal aspects of documentation among post-graduate students of ayurveda of our institute.	Dr. A. A. Wadadekar
52	Agadtantra	Vd. Shweta Londhe	An evaluation of hepatoprotective effect of <i>aparajita</i> roots (<i>clitoria ternatea</i> ,linn.) With <i>ksheer</i> in cyclophosphamide induced hepatotoxicity in wistar rats.	Dr. A. A. Wadadekar
53	Agadtantra	Vd. Mrugendra Prabhakar Darekar	In vivo study of hepatoprotective efficacy of <i>amrut ghrut</i> in cyclophosphamide induced liver toxicity in wistar rats."	Dr J J Phadke

54	Agadtantra	Vd. Abhishek Arun Shirao	“An Experimental Study To Evaluate Nephroprotective Activity Of <i>Goghrita</i> In Cisplatin Induced Nephrotoxicity In Albino Rats.”	Dr J J Phadke
55	Agadtantra	Vd. Gopal Baburao Gangotri	“Analytical study to evaluate the effect of environmental pollution on tulsi (<i>ocimum sanctum</i> linn) with reference to heavy metal concentration (arsenic, lead & cadmium) by icp-ms method.”	Dr. A. A. Wadadekar
56	Agadtantra	Vd. Hrishikesh Avinash Shitole	“Evaluation Of Combined Effect Of <i>Varuna</i> (<i>Crataeva Nurvala</i> , Buch-Ham.) And <i>Patha</i> (<i>Cyclea Peltata</i> , Hook. F. & Thomson.) In Cisplatin Induced Nephrotoxicity In Albino Rats: An Experimental Study”	Dr J J Phadke
57	Agadtantra	Vd.Krishnakant R. Rathi	An Exploratory Clinical Study To Evaluate The Efficacy Of <i>Malati Swarasa Siddha Taila</i> In Management Of <i>Khalitya</i> Due To Hair Cosmetics In The Age Group Of 18-40 Years.	Dr Santhy Thomas
58	Agadtantra	Dr. Madhuri V. Gore	“An Exploratory Clinical Study To Evaluate Efficacy Of Combined Effect Of Swayambhuva Guggul Vati And Eladi Cream In Garavishajanya Vicharchika (Eczema) In Age Group Of 18-60 Years.”	Dr J J Phadke
59	Agadtantra	Vd. Rahul Narkhede	“Analytical study to evaluate the effect of environmental pollution on ark plant (<i>calotropis procera</i> linn) with reference to heavy metal concentration (lead, cadmium, arsenic) by icp-ms method.”	Dr. A. A. Wadadekar
60	Swasthavritta	Dr. Priyanaka Baravakar	An exploratory clinical trial to study the efficacy of Pudina(menthol piperita L.) Phanta in individuals with agnimandya.	Dr. Manore
61	Swasthavritta	Dr. Chaitanya Bhutekar	An exploratory clinical trial to assess the efficacy of Mrudvika (<i>Vitis Venifera</i> Linn.) in malavibandha in the age group 25-50 years.	Dr Bobade
62	Swasthavritta	Dr. Payal Bhandekar	A comparative clinical trial to assess the add on effect of Dhanyak Hima (<i>Corundrum Sativum</i> Linn.) with Shitali Pranayam in Urdhvaga Amlapitta	Dr Manore
63	Swasthavritta	Dr. Dipali Dhobale	An exploratory clinical trial to assess balya karma of dry grated coconut (<i>Cocos nucifera</i> Linn.) with sugar in individuals with Daurbalya.	Dr Firke
64	Swasthavritta	Dr. Bhairavi Chilbule	An exploratory clinical trial to assess the efficacy of Ajamoda (<i>Trachyspermum roxburghianum</i> DC Sprague) in the individuals with agnimandya.	Dr Firke
65	Swasthavritta	Dr. Snehal Suryavanshi	An exploratory clinical trial to assess the efficacy of Ardrak (<i>Zinziber officinale</i>) Gud Kwath in Kashtartav (primary Dysmenorrhoea)	Dr. Bobade
66	Swasthavritta	Dr. Rohit Panchal	An observational study of Yogasana practice among the Ayurveda Practitioners	Dr Bobade

67	Swasthavritta	Dr. Yash Patil	An observational study of Prevalence of Hypertension among school	Dr Manore
68	Swasthavritta	Dr. Sayali Mashakhtri	A cross-sectional analytical study on water intake patterns among individuals with and without agnimandya of the age group 19-50	Dr. Firke
69	Swasthavritta	Dr. Kashifuddin Ayazuddin	Knowledge, attitude and practice regarding Dantadhavan mentioned in Ayurveda among the adult population a cross-sectional study.	Dr. Bobade
70	Swasthavritta	Dr. Pawan Mhaske	An exploratory clinical trial to evaluate the effect of narikel taila shiroabhyang on shift work sleep-disorders among night shift hospital workers.	Dr. Manore
71	Swasthavritta	Dr. Priti Paralkar	An exploratory clinical trial to evaluate the effect of Mishreya (Foeniculum Vulgare Mill.) on individual of Hastapadatal Daha among age group of 19- 50 years.	Dr Firke
72	Kaumarbhritya	Dr Sachin Chavhan	A Randomized Comparative clinical trial to evaluate the efficacy of karanjyadi ointment and Asantwak ointment in the management of Ahiputana with reference to Napkin Rash in children's of age group 2 months to 2 years	Dr. Madhavi Deodas
73	Kaumarbhritya	Dr Rushi Tanpure	A Comparative clinical Trials to evaluate the Efficacy of Khadirvasadi Awleha And Dusparshadi Awleha in the management of Vajaj Kasa in children of age group 2-10 years.	Dr. Madhavi Deodas
74	Kaumarbhritya	Dr Aishwarya Khedkar	A comparative clinical trial to study the efficacy of Sthaulyahara kashaya Ghanwati and Asana kashaya in the management of Sthaulya (overweight) in children of age group 10 to 16 years	Dr. Madhavi Deodas
75	Kaumarbhritya	Dr.Bhakti Mane	A randomized controlled clinical study to evaluate the add on effect of Vidangadi Vati with Ashwagandhadi Ghruta in the management of enuresis in children of age group 5-12 years	Dr. Sudha Singh
76	Kaumarbhritya	Dr.Kiran Jadhav	An exploratory clinical study to evaluate the efficacy of Ela -Gairik Yoga in management of urge of Mrudbhakshan (Geophagia) in children age group of 2 to 6 years.	Dr. Sudha Singh
77	Kaumarbhritya	Dr.Jayesh Patil	Randomized Standard Controlled Clinical Study To Evaluate The Efficacy Of Vasadi Lepa And Vachadi Lepa In The Management Of Pama In Children.	Dr. Deepa Khasgiwala
78	Kayachikitsa	Dr. Akshay Waghmare	A randomised controlled clinical trial to evaluate addon effect of eladi vati with oral hypoglycemic agent metformin & glimipride in type 2 diabetes mellitus	Dr. Abhishek Taksale
79	Kayachikitsa	Dr. Aaditya Kale	A randomised controlled clinical study to evaluate theefficacy of Aabhadi churna in management of dhatukshayjanya sandhigat vata	Dr. Abhishek Taksale

80	Kayachikitsa	Dr. Vaibhav Iknar	A randomised controlled clinical trial to evaluate the efficacy of loha gudadi gutika in pandu with special reference to iron deficiency anaemia	Dr.Vrinda Kurande
81	Kayachikitsa	Dr. Snehal Kuber	A randomised controlled clinical trial to evaluate the effectiveness of shigru ghanvati in management of gridhrasi	Dr.Rupali Khobragade
82	Kayachikitsa	Dr.Rupali Naik	A randomised standard controlled clinical study to evaluate the effectiveness of drakshadi gutika in the management of Amlapitta	Dr.Rupali Khobragade
83	Kayachikitsa	Dr Mandar Garud	A randomised controlled clinical trial to evaluate the efficacy between sthaulyahar kashay Ghana vati and tab rosovastation in management of medovruddhi in sthaulya with special reference to hyperlipidemia	Dr Vrinda Kurande
84	Kayachikitsa	Dr.Prashant Chowhan	A Randomized Controlled Clinical Trial To Evaluate Efficacy Between Krushna Churna And Parijatak Gugulu In The Management Of Ghridhrasi.”	Dr.Rupali khobragade
85	Kayachikitsa	Dr. Pranali Ughade	Comparative Clinical Study of Abhayadi Ghan Vati And Tab Rantac In Management of urdhvag Amlapitta	Dr. Rupali khobragade
86	Kayachikitsa PhD	Dr. Pratiksha Talawar	“Randomized Standard Controlled Clinical Trial to evaluate an adjuvant effect of Triphala Darvyadi Ghana Vati in Madhumeha Upadrava with special reference to Diabetic Nephropathy”	Dr. Rupali khobragade
87	Kayachikitsa PhD	Dr. Vijayalaxmi Patil	Randomized controlled clinical trial to compare the efficacy of Phalatrikadi guggul with tablet Rosuvastatin in Medodushti with special reference to Nonalcoholic Fatty liver disease NAFLD.	Dr. Rupali khobragade
88	Kayachikitsa PhD	Dr. Dhananjay Khot	Standard controlled comparative clinical study to assess the efficacy of adjuvant effect of Sarpagandha Ghana Vati with modern anti-hypertensive drugs in the management of Post Covid Hypertension.	Dr. Rupali khobragade
89	Panchakarma	Dr. Mayuri Shinde	A randomized comparative clinical trial to evaluate the efficacy of Varunadi Choorna Pinda Swedana and Nirgundi Patra Pinda Swedana in the management of Katigata Vata in individuals aged 30-60 Yrs”	Dr Priya Bangar
90	Panchakarma	Dr. Snehal Yendole	Randomized comparative clinical trial to evaluate the efficacy of Shirishmula avapidan nasya and Vidangadi avapidan nasya in the pain management of Ardhavbhedhak at the age group of 20-60 years.”	Dr Mayura Jadhav
91	Shalyatantra	Sanket Sunil Sangale	A Randomised Comparative Clinical Trial to evaluate the effect of Agnikarma by Panchdhatu shalaka among two different sites in the management of Gridhrasi.	Dr.M.S.Banarase

92	Shalyatantra	Ashwini Kirtikumar Patel	A Randomized Controlled Clinical Trial to evaluate the efficacy of Sarivamula taila varti with Povidone iodine solution in the post – operative management of Gudagata Vidhradhi.	Dr.M.S.Banarase
93	Shalyatantra	Sahil Nagorao Rahate	A Randomised Comparative Clinical Trial to evaluate efficacy of Usheera Hima and Renalka Syrup in the management of Pittaja Mutrakrucha.	Dr.M.S.Banarase
94	Shalyatantra	Mohasin Makbool Mujawar	A Randomized Comparative Clinical Trial to evaluate the efficacy of Nagkeshar choorna with Kutajtwak vati in the management of Raktarsha.	Dr.B.K.Oza
95	Shalyatantra	Brinda Sureshbhai Patil	An Exploratory Clinical Trial to study the efficacy of Paranthyadi Tail in the management of Dushta vrana.	Dr.B.K.Oza
96	Shalyatantra	Neha Prakash Shelake	A Randomized Controlled Clinical Trail to evaluate the efficacy of local application of Guduchi ghrita as compare to Shatadhaut ghrita in the management of Parikartika.	Dr. K. Mendhekar
97	Shalakya	Dr. Aparna Bhoite	Clinical Study of Jasakadi Rasayan in the management Of non-proliferative diabetic retinopathy with Optical Coherence Tomography (OCT) biomarkers as visual outcome predictors	C A Virkar
98	Shalakya	Dr. Ganesh Mhaske	Clinical evaluation of the effect of <i>Kalyanavaleha</i> in the management of non-paralytic glottic incompetence (NPGI)	C A Virkar
99	Shalakya	Samrudhhi Magarde	A randomized controlled clinical study to evaluate the efficacy of Lodhra nimba kwath seka and Olopatadine eye drop 0.1% in simple allergic conjunctivitis.	C A Virkar
100	Shalakya	Saniya Katkar	A Randomized Controlled Clinical Study to Evaluate the efficacy of Til and Yashtimadhu siddha Dugdha Gandush and Toothpaste having Desensitizing agent (strontium acetate) in the Management of Dantharsha.	C A Virkar
101	Shalakya	Dr. Sneha Kadapure	An exploratory clinical trial to study the efficacy of Sarjarasadi Pratisaran in Vataja Oshthaprakopa	C A Virkar
102	Shalakya	Shubhada Deshmukh	A randomized controlled clinical study to evaluate the efficacy of Twak Kwath Kavala and Darwyadi Kwath Kavala in acute pharyngitis.	N S Amrute
103	Shalakya	Rupali Choudhari	A randomised controlled clinical trial to evaluate the effect of Rakta Sarshapa (Brassica juncea) Pralepa and Goghrit Marsha Nasya in Vataj Shirshoola	N S Amrute
104	Shalakya	Avani Ganer	A Randomized Controlled Clinical Study to Evaluate the efficacy of Yashtimadhu Siddha Taila nasya and Carboxy Methylcellulose (CMC) 0.5% Eye Drop in Dry Eye Syndrome.	S W Darunde